

NETWORKS, TRUST, AND INNOVATION: THE SOCIAL DIMENSIONS OF
ENTREPRENEURSHIP IN TANZANIA'S MANUFACTURING SECTOR



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In memory of Timothy C. Murphy (1923-1999)

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This dissertation examines the business networks among manufacturing firms in Mwanza, Tanzania, and assesses their influence on innovation and industrial development processes. Networks and the social orientations of manufacturers in Mwanza were explored using in-depth interviews and discussions with 41 business managers that focused on issues of trust and the means through which these individuals use business relations in their production activities. In the data analysis phase, manufacturers were divided into three groups – minimalists, pragmatists, and maximalists – based on a businessperson's social orientation, and correlations between social variables and levels of innovation and performance were computed.

The analysis leads to a number of noteworthy findings. First, networks best facilitate innovation when they are structurally dense and spatially extended and when the businesspeople (agents) participating in them are willing to create strong bonds in their

local communities and build social extensions or bridges to outsiders from other communities and regions. Second, an individual's social orientation and ability to trust is an important factor that contributes directly to the responsiveness and innovativeness of his or her firm. Third, that scholars can better understand the process of innovation and industrial development by embedding the economic activities of firms in the social contexts available to the individuals managing them.

The study more generally improves our understanding of the processes driving businesspeople to interact socially. An institutional framework is developed that deconstructs the dynamics behind network construction, maintenance, and modification. This conceptualization demonstrates that there are competing and overlapping "logics" behind or reasons for inter-firm relations. This approach also contributes to our understanding of social capital by identifying both the patterns of behavior reflecting its presence *and* the processes leading to its creation.

For local manufacturing to become more successful in East Africa, policymakers and planners must foster a broader sense of trust. Major reform of legal systems, the police, and municipal governments are needed and policies that encourage dialogue between the state and business must be encouraged. If levels of trust and accountability can be increased, more risk-taking (i.e., innovation) by businesspeople may result. Such initiatives may embed Sub-Saharan Africa's industrial development process in healthier and endogenously created institutions.

CHAPTER 1 THEORETICAL FOUNDINGS AND INTRODUCTION TO THE STUDY

Introduction

The debate over how Sub-Saharan Africa can best industrialize and integrate itself more wholly, equitably, and productively into the world economy seems never-ending. Development scholars have devised a variety of strategies, including import substitution policies, basic needs provision through a strong welfare state, and export-led liberalization through weak states. However, no single approach has led to the consistent and continuous development of the human, social, and economic capital necessary to stabilize and embed long-term economic growth in the region. This is not to say that failure has been universal or unambiguous, only that the promised industrialization and modernization of independent Africa has proven far more difficult than first imagined.

The reasons for this are complex, multi-dimensional and, most importantly, context-specific. One major problem with industrialization policies has been their limited accounting of the social, political, geographical, and cultural factors influencing their prospects and potential in Sub-Saharan Africa. The lack of contextual understanding is reflected in the failure of many economic development policies and programs throughout the region. Failure is especially apparent in the manufacturing and industrial sector. Myriad approaches to industrialization have fallen short of their often lofty objectives as local firms, entrepreneurs, and foreign investors have failed to respond to incentives, subsidies, and promotion schemes. The net result is that Sub-Saharan Africa remains

dependent on primary products for economic growth and that there is limited endogenous and independent capacity for industries.

This dissertation demonstrates the importance of context for development policy and examines the role of social institutions in promoting innovation and industrialization in Sub-Saharan Africa. Although healthy and efficient markets are vital to industrialization, the embedding of the process in social structures and relations is crucial for the long-term development of a uniquely African industrial sector. Embeddedness means that the industrialization process is linked firmly and deeply to the social structures, institutions, and agents influencing economic relations. In other words, entrepreneurs, firms, and markets need to be densely interconnected and there must be formal and informal institutions to foster innovation and information exchange within industries. Without this embedding, African industries will be unable to compete globally and Africans will remain poorly skilled and resource limited in relation to foreign competitors and transnational corporations.

The process of embedding industrialization in Sub-Saharan Africa depends on the ability of local entrepreneurs, businesspeople, and capitalists to mobilize resources, acquire information, and build human capital. Social relations and institutions are critical to this process and the development of local industry must coincide with the building of innovative partnerships and relationships between firms and other institutions throughout the region. Implementing policies to facilitate such partnerships is problematic considering the traditionally weak relations between the state and much of African society. Moreover, a lack of preexisting formal institutions to protect businesses and foster trust in industry discourages risk-taking and the development of more widespread

networks among businesspeople. Policymakers and planners must understand and address these constraints if they are to promote broader, deeper, and healthier social transformations in Sub-Saharan Africa. Stronger societies will, in turn, strengthen local industry, encourage innovation, and create the formal and informal institutions necessary for endogenous industrialization and technological development.

Entrepreneurs have an important role to play in this process. As structural adjustment takes hold in Sub-Saharan Africa and markets open, local industry must adapt quickly to a new economic environment. Entrepreneurship in such a context is dependent on a businessperson's ability to maintain flexibility and competitiveness in the face of economic uncertainty. Beyond technical skill and access to capital, entrepreneurship is influenced by the quality of a businessperson's social connections and networks. Social relations can accelerate the transmission of market information, facilitate the creation of knowledge in an industry, and foster systems of mutual assistance among competing firms. Alternatively, however, these relations may limit access to information, ideas, and capital if network participation is dependent upon particularistic criteria or if the social structure is limited to a narrow group of individuals. If we are to assess the potential paths and futures of industrialization in Sub-Saharan Africa, it is vital that these structures be identified and that the capacities of economic agents (e.g., entrepreneurs and business owners) to innovate and exploit them is understood.

This study explores innovation and entrepreneurship from a geographic, economic, and sociological perspective. Economic behavior is viewed as being embedded in social structures and institutions, both formal and informal. Entrepreneurship is driven not only by the capacity and understanding of entrepreneurs

(the agency side), but also by the social, cultural, and political institutions found in regions (the structure). Networks are at the center of the conceptual framework and these emerge where entrepreneurs, as agents, interact with others in ways regulated and influenced by the social, cultural, and political context. Trust is a key characteristic of these relationships in that it stabilizes networks, influences performance, and facilitates innovation.

This study examines these social factors as they relate to small and larger-scale manufacturing firms in Mwanza, Tanzania. Mwanza is an excellent location for studying the dynamics of industrial change and entrepreneurship. As Tanzania's second largest city, Mwanza plays an important role in meeting the service and market needs of the Lake Victoria basin and has the potential to become a powerful hub of trade in East Africa. Industry in Mwanza has traditionally been concentrated in the primary sector – namely fish, cotton, and minerals – and the city has yet to develop many value-added and/or export-oriented manufacturing firms. The potential exists but there are extensive capital and political limitations facing the manufacturing sector at the present time.

The social dimensions of innovation and entrepreneurship among manufacturers in Mwanza were assessed during fieldwork in and around the city. In-depth interviews were conducted with business owners and managers, ranging from micro-scale enterprises to larger-scale firms supported by outside corporate interests. Discussions focused on how trust is established in business and how firms use business relations for production and innovation. Inter-firm and business networks were identified and their basic structures described. In the data analysis phase, manufacturers were divided into three groups – maximalists, pragmatists, and minimalists – based on their use of business

networks and their degree of outward social orientation. Each group's performance, level of innovativeness, and use of trust were evaluated, and correlations between these variables were computed.

The remainder of this introduction sets the stage for this analysis through a brief discussion of the obstacles to economic development in Sub-Saharan Africa and with a summary of the major theoretical perspectives on industrial development in the region. The objective here is to stress the diversity of issues and ideas shaping the region's development trajectory and to clearly set this study within both a regional and intellectual context. With these "contexts" described, the chapter closes with a discussion of the major goals and objectives of the study and with details about the structure of the dissertation.

The Challenges Facing Sub-Saharan Africa

Since the onset of structural adjustment programs in the 1980s, Sub-Saharan Africa's economic and political context have changed dramatically. On the positive side, many nations have realized gains in economic growth and opportunity and there is a general trend toward multiparty systems and democratization. In the 1990s, economic growth rates were generally higher than the previous two decades and countries such as Botswana (4.1% since 1990), Uganda (7.2%), Mauritius (5.1%), and Ghana (4.3%) demonstrated relatively strong economic performance in conjunction with relatively healthy governance (World Bank 1998a, 1999). Moreover, few single party states remain in the region as many long-standing autocracies were replaced by more democratic political systems (e.g., in Malawi and South Africa). Coupled with improvements in

communication systems, these changes have led to advances in the accountability of government agencies and to more open channels for information dissemination.

Unfortunately, however, most of Sub-Saharan Africa remains captive to chronic poverty and limited by significant human capital constraints. Numerous countries remain paralyzed by seemingly never-ending civil wars (e.g., Angola, Democratic Republic of Congo, Guinea-Bissau, Sierra Leone, Sudan), by ethnic entrepreneurship and violence (e.g., Rwanda, Burundi), by repressive autocratic regimes (e.g., Liberia), or by *de facto* single-party or predatory states (e.g., Kenya, Zimbabwe). Population growth rates (2.7% on average since 1990), under-5 mortality rates (147 per 1,000), and illiteracy rates among women (53%) remain high and average life expectancy remains low at fifty-one to fifty-four years (World Bank 1999). Growth rates in the region's industry value-added (1.9% in 1997) pale in relation to Latin America (2.8%), South Asia (6.9%), and East Asia and the Pacific (14.5%) (World Bank 1999). Most governments in the region are limited by capital and capacity and many are simply adversarial toward private sector development. Moreover, in many African countries experiencing structural adjustment, cutbacks in government services and agencies have done little to improve the quality of social services available to Africans. Foreign debt is high in most countries and development assistance remains a significant portion of the Gross National Product (GNP) (5.3% in 1996) (World Bank 1999).

These factors limit the ability of Africans to take risks in business, discourage innovation, and contribute significantly to the relatively slow pace of technological change throughout the region. In this context, few entrepreneurs and businesspeople have been able to develop export-based industries beyond the primary sector and markets

for value-added products are dominated by imports or goods produced locally by transnational companies managed by foreign interests and individuals. Most locally owned and managed firms are small in scale; thus, the capacity for export-led growth through value-added manufacturing remains a distant dream in most countries.

It is imperative that scholars and development professionals better understand the dynamics of these constraints in order to more effectively manage economic and social change in the region. Development policies must be multidimensional by design and explicitly conscious of the need to balance social welfare with macroeconomic desire. Careful fiscal and monetary management must occur in parallel with long-term perspectives on the implications of cutbacks to welfare, education, and health programs. Good governance is vital to this process and Hyden (1992, 1997), Bratton and Rothchild (1992), Picard et al. (1994), Chege (1995), Killick (1995a), and Evans (1995) have stressed its importance and the need to integrate economic development and social transformation through targeted capacity building and the nurturing of "bottom-up" initiative.

Entrepreneurs, as agents facilitating economic growth and development, are vital to this process. However, there is limited knowledge about the means through which African entrepreneurs innovate and profit in spite of the enormous obstacles and barriers facing their firms. Policymakers must better understand the dynamics of entrepreneurship in Sub-Saharan Africa if policies are to address the long-term constraints on the region's economic development. In particular, there is a need to understand the social processes through which technological change, business development, and innovation occur. In exploring the social relations among

manufacturers in Tanzania, this study contributes to our understanding of the social conditions necessary for innovation and entrepreneurship in Sub-Saharan Africa.

The conceptual approach applied here integrates the social institutions (structures) related to economic action with the individuals (agents) using them. Instead of bounding rationality in relation to these institutions, economic activity is viewed as being embedded in them. Such institutions include formal organizations, cultural groups, rules, and laws as well as informal relationships having stability, consistency, and predictability. Social networks among businesspeople are viewed as informal institutions and their contribution to innovation and performance in manufacturing firms is examined here. By exploring structural and agency-related factors in networks, this study contributes to knowledge regarding both the social processes and patterns evident in innovative business relationships. In doing so, it is hoped that the findings presented here might help policymakers better understand the ingredients needed to create an enabling social environment for entrepreneurship and industrialization.

Perspectives on Industrialization and Economic Development in Sub-Saharan Africa

Since most of Africa achieved independence in the 1960s, scholars, planners, and policymakers have struggled to find the best means to help industrialize the region rapidly and efficiently. Policies and programs have varied by country and ideological basis (i.e., capitalist or socialist) but few countries have achieved significant industrial or manufacturing sectors when compared to other developing regions (e.g., East Asia, Latin America). Approaches to industrialization in Sub-Saharan Africa have included import-substitution programs stressing capital-intensive industries, basic-need and labor-

intensive policies, Africanization or indigenization policies and, most recently, trade liberalization and neo-liberal policies to promote foreign investment and export-led growth. These approaches have had varying degrees of success but none can be considered widely and significantly successful throughout the region.

The debate continues over the best course of action for Sub-Saharan Africa. There are numerous competing ideas and theoretical perspectives on industrialization, most of which provide insight into the constraints on development in the region. Although most are sound at a theoretical level, their application in the creation of realistic or fair policy is often problematic. Simply summarized, scholars approach industrial and economic development in Africa from four major theoretical perspectives: the neo-liberal and market failure model, regulation and neo-Marxist theories, transaction-cost approaches or the new institutional economics (NIE), and the embeddedness framework. This study applies the embeddedness perspective as it is felt that embeddedness offers the richest conceptual framework for evaluating the processes of innovation, entrepreneurship, and institution building. Before arguing further in support of this approach, a review of the other conceptual frameworks is useful and appropriate.

Neo-Liberal and Market Failure Perspectives on Industrial Development

This body of theory is grounded in the ideal of perfect competition, free markets, and economic efficiency on a global scale. Global markets are ruled by comparative advantage and openness is the key to economic and political success. Technological development and industrialization come about as natural outgrowths of market engagement and vibrant capitalism. As wage rates increase in more-advanced countries, comparative advantage gradually shifts to less-developed areas that initially achieve

industrialization by producing labor-intensive products.¹ Comparative advantage is created by developing countries through the imitation or adoption of labor-intensive technologies created in developed regions. These technologies allow mature industries to shift from high-wage to low-wage economies as global economic growth continues. Historically, Kuznets (1955), Rostow (1960), and Gerschenkron's (1962) ideas fit well within this perspective as they view economic development as occurring in stages driven by traded technologies. Moreover, the transfer of technology allows for "leapfrogging" by developing countries as developed regions shift to more technologically advanced economic activities.

In this perspective, efficient and free markets are the driving forces in industrialization and the role of states is limited to correcting and eliminating market failures. Stiglitz (1989) views market imperfections as the key factor preventing industrialization in most developing nations. Information is critical, and without enough of it, especially with regard to markets, transaction costs remain too high for entrepreneurs to invest in more productive technologies. Externalities are also important as they can limit access to outside markets if perceptions of product quality are low (Stiglitz 1989). Government can intervene in these imperfect markets by providing quality assurance to potential consumers and information to industry. Otherwise, intervention by the state should be limited to public goods (e.g., defense and health care) as free trade and competitive markets are able to do the rest. Sachs and Warner (1997) applied some of these ideas to African economies and found significant statistical

¹ This theory is grounded in the ideas behind the Heckscher-Ohlin-Samuelson (HOS) theory of trade. In this theoretical framework, technology is a freely traded commodity and comparative advantage is determined largely by a country's degree of labor intensity (Personal communication from Alice Amsden, Department of Urban Studies & Planning, Massachusetts Institute of Technology, September 18, 1995).

relationships between economic openness and macroeconomic performance. They argue that Africa can attract new technologies by actively engaging in global markets and by allowing more foreign investment. As these technologies are absorbed, comparative advantage will eventually favor Africa's low-wage economies, an evolution to higher-end products will ensue, and an African economic "miracle" will follow.

This market-friendly perspective is important in influencing financial institutions (e.g., the International Monetary Fund [IMF] and the World Bank) funding development programs and driving the implementation of structural adjustment policies. However, its relation to small-scale enterprise and endogenous industrialization is problematic. Openness, the cloning of technologies, and the mass production of cheap consumer goods do not guarantee the development of local industries. What they most clearly promote is an expansion of foreign investment in the region and the diffusion of foreign products into Sub-Saharan Africa's consumer markets. Despite the employment benefits and capital flows associated with these policies, they may not ensure the incubation of local industrial capacity. Employing wage laborers in foreign-owned factories is not the same as building technological capacity or incubating entrepreneurial behavior. How transnational corporations will promote indigenous technological development and build strong links to small and medium-scale enterprises is not realistically addressed by neo-liberal theories. Moreover, the idea that free and truly efficient global trade is possible is one that needs careful scrutiny. For most nations, selective openness is preferred and, despite the World Trade Organization's (WTO) efforts, this trend will likely continue. In sum, neo-liberal and market failure approaches fail to explain how local firms and entrepreneurs will develop the skills and capacity to adapt to open markets and global

trade and how they will compete with multi-national and foreign interests. Considering the gaps in technology and capital levels between Africa and other regions, this is a consideration that must be explicitly addressed and targeted through economic policy.

Neo-Marxism and Regulation Theories on Industrial Development

Not surprisingly, the neo-Marxists contrast the neo-liberals and the industrialization process centers around a class struggle. Leys (1996) makes a powerful case for a locally driven industrialization process in Africa and effectively challenges both classical Marxists and neo-liberals. He argues that Marxist scholars have for too long focused on arguments related to class struggle, hegemonies, and dependency theory. Instead, Leys believes we can better understand the prospects for indigenous capitalist growth in Africa through an exploration into the “dynamic forces” determining the region’s present path of economic development (Leys 1996:153). The formation and incubation of a well-articulated, well-organized, and cohesive domestic capitalist class should be of paramount concern and Marxists need to become relevant in the debate once again.

Beyond Leys’ class-based argument for industrialization, there is the regulation school of development theorists. Regulation theorists have examined the structures and paths of post-Fordist (after mass production) capitalist development. In general, regulation theory scholars focus on the structural characteristics of economies – their “regimes of accumulation” – and a state and society’s ensemble of institutions – the “mode of regulation” (Amin 1994a). Markets are viewed as institutions built upon principles of trust and norms of reciprocity (Elam 1994). Labor is a crucial component and labor relations are often used as proxy for state-society linkages.

In terms of industrialization, regulation theorists such as Jessop (1994:263) believe that the next phase of capitalism will lead to a “hollowed-out Schumpeterian workfare state.” This hollowing out process occurs as state structures are weakened from both inside and out and state autonomy falls victim to the pressures of globalization (Jessop 1994). Because of this, labor and government become adversarial, and local institutions weaker as global markets and supra-national institutions (e.g., the World Trade Organization [WTO] and multinational corporations [MNCs]) achieve greater control over the means of production. If the benefits of industrialization are to be more equitably distributed throughout society and an effective capitalist class is to be established, there must be a redistribution of power among communal, regional, and national institutions. In other words, power must be decentralized, and investments in indigenous industry and local capacity building must be a priority for governing bodies. Jessop (1994) acknowledges that this cannot be possible without a benevolent state dedicated to massive institutional reform.

While neo-Marxist perspectives and regulation theory bring needed insight to theories of neoclassical economic development, they continue to face the dilemma cited by Leys (1996), that of practicality. Class structures and generalities about institutions are useful for describing power relations, but neo-Marxists fail to provide sufficient insight into the firm and agency-level dynamics driving industrialization, entrepreneurship, and economic development (what regulation theorists would call the process of moving from one regime of accumulation to another). Causes are given for the demise of Fordism and predictions are made for the future, but little information is offered to explain how we get from one regime to another, and little guidance is provided

to help policymakers actually facilitate more equitable economic transitions. Moreover, we are given few ideas about how a new capitalist class structure can be established in the face of foreign interests and local elites and how it can be effectively mobilized to industrialize the economy without excessively marginalizing other social classes and actors. Despite these criticisms, neo-Marxist perspectives bring important contextual detail to light and demonstrate the problems inherent in neo-liberal ideals.

Neo-Institutional and Rational Choice Perspectives on Industrial Development

By the end of the 1980s, in the face of the “East Asian miracle,” a new school of thought emerged to counter the approaches of the neo-liberals.² Chalmers Johnson’s (1982) and Alice Amsden’s (1989) detailed studies of the intricacies of Japanese and Korean industrialization and Robert Bates’s (1981) lucid exposure of the hegemony of the state in markets in Africa demonstrated how economic development is a function of forces beyond the market. Douglass North’s (1990) work on institutions and economic development has since become the foundation for this school of thought. North and others highlight the importance of history and social relations and provide evidence for their theories in large part through an analysis of Asia’s post-World War II economic transformation. Neo-institutional scholars are important in that they demonstrate how the state can play a strong role in the development process and how most markets are anything but perfect.

² The term “East Asian Miracle” comes from a report published by the World Bank (1993a) that uses the then-astonishing growth in Asian markets (esp. South Korea, Taiwan) to argue in favor of a neo-liberal approach to industrialization throughout the world. The book was very influential when published but doubts about the ideas presented in it emerged quickly as East Asian markets began slumping the mid-1990s.

North (1990) effectively and powerfully brought the idea of institutions into mainstream economics. He views institutions as existing external to agency, as constraints on rationality, as enforcement mechanisms for social and economic relations, and as the “rules” structuring the economic “game” (North 1990, 1993, 1996, 1997). Agents (individuals) are the decision-makers and base their choices on the opportunity and transaction costs related to an organizational decision. Institutions supply the formal rules, embody collective learning, and provide the social infrastructure in which economic action takes place (North 1996, 1997). Information and trust are important in that they reduce transaction costs and facilitate the state’s negotiations with society. In North’s (1990) perspective, property rights and improvements to the political environment (i.e., democratization) are crucial means for reducing the uncertainty of this game.

Bates (1997) and others have furthered this cause by bringing the rational choice paradigm to the forefront of the new institutional economics (NIE). Their basic argument is that institutions structure behavior and that governments can either positively or negatively change these structures or rules, thus influencing the economic trajectory of their nations. In constructing rules and institutions, government agents rationally calculate the utility of different options based on the available information, norms, rules, and ideologies. Thus, governments lacking good information will inevitably create sub-optimal or inefficient economic and political institutions. When institutions are constructed properly using good information, however, transaction costs decrease and the market is allowed to play its rightful and efficient role in distribution and economic development.

NIE scholars apply institutional frameworks to define and limit the options available to rational actors. These actors use institutions as means of dealing with the ever-rising transaction costs related to the continual need for greater amounts of information (Eggertsson 1996, 1997). Institutions are influenced by outside relations, such as culture, but can be clearly distinguished from them by the rationality of institutional actions (Fuglsang 1993). In essence, NIE scholars view institutions as constraints on rationality in a given economic context and agency as manifest in rational responses to normative stimuli. Thus the major distinction between the neo-institutionalists and neo-liberals is that NIE scholars focus more on transaction costs and less on factor costs (e.g., labor, capital).

Research from the NIE perspective has focused on formal rules and regulations such as property rights (Ensminger 1992, 1997, Eggertsson 1996). Applications of the NIE to industrialization are flooding the literature and the World Bank appears to have adapted North's ideas to an appropriately liberal (economically) policy (World Bank 1999). Competing frameworks applying the new-institutionalism are Killick's (1995a, 1995b) "flexible economy," Evans's (1995) "embedded autonomy," and Humphrey and Schmitz's (1996) "triple C" approach to industrial policy. Although there are clear distinctions among the approaches of these scholars, each views the state as a critical force in the establishment of industry and the promotion of export production. Like the neo-liberals, NIE proponents see openness as important for increasing competitiveness. However, the state is useful beyond the correction of market failures and should be, instead, the "midwife" of industry (Evans 1995), the responsive promoter of entrepreneurs (Killick 1995a), and/or the chief marketing agent for exports (Humphrey &

Schmitz 1996). Government is viewed as a generally good thing as long as it remains autonomous, transparent, and rational from an economic perspective. The new institutionalism has brought extra-economic factors into the neo-classical framework and has shifted conventional development wisdom away from utopian ideals of perfect competition and simplistic market driven societies.

Where the NIE fails, however, is in its inability to account for the role of agency in economic development. Although some authors discuss the political relations driving economic action (Evans 1995), most fail to consider the relation between agents of social change and the institutions influencing their actions. A top-down approach to development remains and there is little explanation of how small-scale firms producing goods primarily for local markets are to transform their businesses into enterprises able to compete with transnational corporations. Instead, there is an implicit assumption that entrepreneurs are rational creatures instinctively able to maximize their profits by reducing factor and transaction costs through whatever institutional arrangements are available to them. Thus the state can improve the prospects for economic growth by simply improving the quality and capacity of the institutional arrangements available to entrepreneurs. Another assumption is that these arrangements can be formalized and that the best entrepreneurs (both in terms of economic multiplier effects and social benefits) will rapidly take advantage of them to exploit new market opportunities.

Although this view has merit in its ability to account for the role of history and the state, it ultimately oversimplifies the processes of institutional change and economic development. By concentrating on the structural aspects of institutions and by focusing on formal rules and property rights, new institutionalists gloss over the importance of

less-tangible issues such as individual capabilities, identities, and egos in the industrialization process. In other words, NIE scholars fail to account for the influence of cognitive function on knowledge creation, innovation, economic action, and entrepreneurship. Cognitive factors are critical for communication and in determining identities, utilities, capabilities, and endowments in institutions (Scott 1994, 1995). As Simon (1978) observed, what is “rational” is a function of the type of individual selected as a proxy for universal utility maximization. Fransman (1994) has further demonstrated the shortcomings of bounded rationality perspectives. He essentially asks whether the objectives of individuals are always clear and well understood. If objectives are not clear, how can a rational decision be made? In examining these questions, he assails the NIE for its assumption that individual preference functions are known and, like Hodgson (1998:182), argues against the assumption that individuals are “utility maximizing automata.” Ultimately, it is this determinacy that limits the NIE’s usefulness in examining the factors driving entrepreneurship, economic change, and industrial development.

Embeddedness, Institutional Thickness, and Industrial Development

Mark Granovetter’s (1985) landmark publication, *Economic Action and Social Structure: The Problem of Embeddedness*, arguably started a new wave in development economics. Granovetter argued that although social relations between individuals may create an atmosphere of economic trust, these relations are insufficient themselves and require networks to embed them into a given socio-economic context. Embeddedness occurs when institutional and network structures are woven together such that they can no longer be distinguished as separate entities. It is through embeddedness that actors

and actions are broadly legitimated and that economic decisions become more than simply rational choices (Granovetter 1985). Social relations and networks are thus vital to development since they embed healthy institutions for the long term and create what Storper (1995:405) calls “untraded interdependencies” (Dawson 1992, Hansen 1992, McDade & Malecki 1997). Uzzi (1997a) has identified four kinds of embeddedness: structural, cognitive, political, and cultural. He views the structural form as key in explaining exchange relations and inter-firm networks.

The embedding process is also important for creating “thicker” institutions in regions. Institutional thickness is indicative of healthy and stable networks or social relations that interconnect local institutions, entrepreneurs, individuals, and markets in a common framework with common goals and objectives (Amin & Thrift 1993). Amin and Thrift (1993) view institutional thickness as a prerequisite for any nation’s industrial development and find it to be influenced by social, cultural, and political factors, by the quality of formal and informal institutions, and by the interactions between the agents participating in the industrialization and economic development process. There is an explicit linking of agency and structure through this framework thus making it applicable for any analysis of the agency aspects of economic development, innovation, and industrialization.

The embeddedness literature offers a valuable alternative in development studies that successfully brings together ideas from the neo-liberal, neo-Marxist, and neo-institutional frameworks. Market failures are important and information remains critical to the lowering of transaction costs. Social structure, history, and class divisions are also vital in that they influence social interactions and the establishment of trust, facilitate the

creation of conventions, help determine who and what is legitimate, and enable or constrain the “thickening” of institutions. Institutions and social structures are important and, in some ways, are viewed as the “rules of the game.” However, in integrating and incorporating these varied ideas, the embeddedness argument encourages us to look beyond the transaction-cost implications of social institutions and asks that scholars explore the meanings, identities, and agents constructing them. This understanding is critical if we are to better predict how economic agents (e.g., entrepreneurs) might respond to policy incentives and changes.

The embeddedness perspective is a positive step toward the development of a more holistic conceptual framework for economic development. The development of such a framework is essential for helping policymakers facilitate a more independent and endogenous process of industrialization in Sub-Saharan Africa. At the present time, the classical approach to development remains strong among aid agencies, states, and policymakers in the region. In this process, formal institutions, programs, and projects are created outside the African context and imported into the region where it is hoped they will embed themselves over time with extensive foreign or national investment. This approach has faced severe limitations due to corruption, mismanagement, poor targeting at the outset, and a severe lack of contextual understanding. The contention here is that one cannot effectively implement policies to promote technological change, innovation, and entrepreneurship unless he or she first accounts for existing institutions and the agents who participate in them. If new institutions for promoting industrialization are to be adopted, policymakers and planners must understand what the new institution is competing with and how the incentive for change compares with the

incentive for not changing. This understanding is best achieved by using a conceptual basis that embeds the activities of the agents in industrialization (e.g., entrepreneurs, investors) within the available social, political, cultural, and economic structures. In examining how agents choose institutions, how their relations are strengthened within them through trust, and how institutions are used for production, marketing, and innovation, we can best understand the potential gains and losses associated with shifts in the policies influencing economic activities.

The Goals of this Study

This study examines social networks of entrepreneurs in Mwanza, Tanzania, and demonstrates how social relations influence performance and innovation in the manufacturing sector. The study contributes to our understanding of economic development issues in Sub-Saharan Africa and to the literature examining the role of social structures, networks, and informal institutions in entrepreneurship and industrial development. Key questions and issues addressed through this research include the following:

1. What are entrepreneurial social networks and relations most important for in Mwanza, who gets to participate in them, how do they function, and how are they structured?
2. How does one's level of participation in networks and his or her external connections influence performance and innovation in a firm?
3. What is the role of trust in the social relations among manufacturers and entrepreneurs in Mwanza? How does trust influence innovation and performance in the manufacturing sector? What trust mechanisms are most commonly used by businesspeople and which are most important for innovation and performance?

4. What types of businesspeople are more oriented toward social relations and more dependent on networks? How does this orientation influence performance and innovation in their firms?
5. Does a conceptual framework that embeds economic activities within social, cultural, and political relations offer better insight into innovation and entrepreneurship than neo-liberal, neo-Marxist, or neo-institutional approaches?
6. How do trust and participation in social networks contribute to social capital in Mwanza's manufacturing sector? How can the embeddedness approach contribute to the usefulness of social capital as a variable in development studies?

These questions are important to scholars and development professionals striving to better understand the dynamics of economic development, social change, and technological innovation in the developing world. In particular, this study will be of use to those interested in the role of social networks and social relations in these processes. If social capital and innovative business networks are a desired outcome of policy, it is necessary that we first understand how existing networks function, how they are embedded in and connected to local context, the present role of these networks in building social capital, and their importance for creating technical capacity.

Knowledge of this sort is especially important as many governmental and non-governmental development agencies are shifting resources into programs hoping to foster organic, flexible, and fluid social interconnections among small businesses and other aid recipients. Despite the value of such programs, their efficacy appears to be limited by the fact that aid organizations and government agencies are generally more comfortable with projects whose levels of success are more easily measured (e.g., the creation of formal groups, the provision of financing, and the construction of physical infrastructure). Unable to deal directly with less tangible variables such as trust, accountability, and entrepreneurship, these organizations focus instead on more concrete objectives including

modifying regulations and laws to improve accountability, making financing more available to collectives, providing infrastructure to self-help organizations, or creating industry-based organizations to facilitate information exchange and innovation. It appears that many of these approaches fail to promote collective economic relations or to establish more competitive industries as there are social constraints limiting the desire and ability of businesspeople to utilize or adopt them. This study identifies some of these constraints and offers suggestions as to how aid agencies might better address them in the future.

In another sense, this study is important in demonstrating the strength and resilience of informal institutions in Sub-Saharan Africa. Recent perspectives on development in Africa view weak institutions as a major factor limiting economic growth and development (Biggs et al. 1995, Dia 1996). Although institutional problems certainly exist throughout the region, not all institutions in Africa are weak and counter to economic growth. Perhaps the weak institution argument results because many scholars grant institutional status to only formal political, cultural, or financial practices, groups, and organizations. It is contended here that any analysis of social institutions should also include less tangible but regular patterns of behavior that structure day-to-day actions. Social networks, routines, norms, biases, and informal rules are examples of such institutions and are critical influences on market activities throughout Sub-Saharan Africa. Demonstrating the strength of these institutionalized relations and routines is an important objective of this study.

Beyond describing the local context and the internal workings of social networks, this study examines external influences on the behavior of economic agents, the structure

of networks, and innovation and performance in firms. Influences from the state, foreign aid agencies, outside business interests, and global markets are of particular interest. These national-to-local, regional-to-local, and global-to-local interconnections may influence a businessperson's access to inputs, technologies, and information and may affect the viability of markets for locally produced goods (Lall 1992a, Picard & Garrity 1994, Humphrey & Schmitz 1996, Pedersen 1996). Structural adjustment programs (SAPs) have liberalized economies and opened much of the Sub-Saharan Africa region to foreign trade and investment. The question of whether or not these external connections are embedded and visible in local business networks is important as it tells us something about the links between economic liberalization, social change, and innovation.

Within East Africa, this study provides insight into how social networks develop, strengthen, and are embedded in urban areas. This is important, particularly to scholars hoping to better understand the micro-level dynamics of urbanization and industrialization. Much of the literature on African industry describes the collective learning and mutual cooperation prevalent among small-scale entrepreneurs and petty traders in urban areas (e.g., King 1996, Macharia 1997, Tripp 1996, 1997). Vignettes about and glimpses into a wide range of "informal" sector activities are informative but limited in their capacity to explain how business relations are established and maintained.³ Where studies do explore these issues, the focus is generally on the transaction costs and/or relative prices that provide incentives or disincentives for

³ A clarification is necessary regarding the use of the term "informal sector." Informal or "second" economies of developing countries are inconsistently defined and described and there is no established or widely accepted definition. Despite this, the term is powerful in its cognitive implications and symbolic connotations. In this study the term "informal" is used simply to refer to firms that are small in scale and often unregistered or unlicensed with the state. However, the focus here is on all firms and enterprises and not on whether or not they fit into the definitions of the informal sector or whether or not they are licensed.

collective behavior, not the agency factors leading to the creation of networks (e.g., Ensminger 1992, 1997). Agents are assumed to be rationally, predictably, and universally responsive to particular price and cost signals and cognitive factors are weakly explored in favor of structural explanations for collective action. The question remains as to whether there are other agency-oriented reasons for business relationships. This study examines how these factors are manifest in the business networks used by manufacturers in Mwanza and improves our understanding of the cognitive processes that drive individuals to interact socially with other businesspeople. In doing so, the dynamics behind network construction, maintenance, and modification become clearer as do the limitations on approaches to network creation that universalize and rationalize the behavior of participants.

This is an important consideration for scholars of the NIE. Networks offer insight into cognitive processes by showing us how individuals become trusted enough to participate in them, how legitimate behavior in these relations is interpreted, and how information exchange and economic relations actually take place. By drawing out the interconnectedness between institutions and individual cognitive processes, this study argues against those promoting an implicit or explicit separation between agency and structure. Moreover, by integrating agency and structure, the particularities of place and region emerge and the embeddedness framework is demonstrated to be an inherently geographic means for conceptualizing economic development processes.

Lastly, this study contributes to the literature on the role of trust and social capital in economic development. Trust is a key binding mechanism for social interaction and a crucial contributor to the social capital found in regions. Numerous scholars (e.g.,

Eisenstadt & Roniger 1984, Dasgupta 1988, Giddens 1990, Platteau 1994a, 1994b, Fukuyama 1995, Lane & Bachman 1998) have explored the role of trust in economic development and found it to be a key element in the transition to modernity and a more civil society. In this study, trust is an important independent variable used to assess the willingness and ability of individual businesspeople to participate in networks and social relations. The findings here demonstrate that trust mechanisms empower economic agents to take action, that they facilitate innovation, are crucial for collective action, and that they reflect the existing social environment for entrepreneurship. Moreover, social capital is derived in part from trust as well as from the density and extent of the networks evident in a society. By assessing both the social relations among businesspeople in Mwanza and the mechanisms of trust they utilize in building these relations, this study contributes to our understanding of the processes through which social capital is created and maintained.

The Structure of the Dissertation

The discussion that follows is organized into eight chapters. Chapters 2 through 5 are foundational and devoted to the literature, methods, and context of this research. Chapter 2 reviews the literature relating social relations, networks, and trust to entrepreneurship, social capital, and innovation and describes the conceptual framework used throughout the study. This review and conceptual development moves beyond the broad-based embeddedness framework and situates this study in relation to other empirical works on entrepreneurship and networks.

Chapter 3 describes the methods through which the framework was operationalized and then applied in Mwanza. Details and descriptions of each variable

are given along with commentary about how the data were collected. Chapter 4 provides background information on Tanzania. The geographic, economic, cultural, and political context is summarized with particular focus on the status of and issues related to the ongoing structural adjustment process. Chapter 5 explores the particularities of the Mwanza context, introduces the sample of manufacturers surveyed, and summarizes demographic and firm-related technical information for each respondent. Chapter 5 also introduces the reader to a typology of businesspeople based on respondents' orientations in regard to social relations. Specifically, three categories of social behavior are identified – *minimalists*, *pragmatists*, and *maximalists*. The categories represent, respectively from minimalist to maximalist, increasing degrees of network participation, an increasing willingness to trust formal institutions and strangers, and an increasing level of connectedness to individuals and ideas from outside Mwanza. The general characteristics of each category are described and the scores for the independent and dependent variables are summarized.

Chapter 6 details the nature and extent of social relations among manufacturing firms and businesspeople in Mwanza and applies the conceptual framework developed in Chapter 2 to describe three “logics” (credit-seeking, reputation-building, and information-gathering) behind the social relations observed in Mwanza’s manufacturing sector. In effect, each relational category represents a different reason for social participation. These relations are described in terms of the conventions shaping them, the bases of legitimacy determining their participants, and the role of trust in establishing and strengthening them.

In Chapter 7, the results of the correlation analyses between the independent and dependent variables are provided. First, structural factors in networks are assessed through correlations between respondents' use and extent of network relations and their firms' performance and innovation levels. Next, agency factors in networks are evaluated through correlations relating respondents' use of different trust mechanisms and their firms' performance and innovation levels. Tables are provided to summarize these findings and there is some preliminary evaluation of the findings.

Chapter 8 brings the findings from Chapters 6 and 7 together in a stylized discussion summarizing the results of this study. Five general findings are highlighted and detailed. First, that scholars studying business networks should apply conceptual frameworks that explicitly account for both the agency and structural influences on these social relations. Second, that innovation is best facilitated through locally dense and spatially extended networks that are constructed and maintained by individuals willing to build strong bonds within their communities and weaker bridges to other communities. Third, that individual social orientations and degrees of openness toward business relations are important factors driving innovation. Fourth, that the types of innovations achieved in firms relate to the trust mechanisms utilized by their managers or owners and to the types of networks available to them. Lastly, the chapter closes by stressing that, despite their importance, social relations are not everything and that performance and innovation also depend on non-social factors such as industry structure, market development, technical capacity, and capital accessibility.

The dissertation concludes with Chapter 9 where a broad discussion brings the study full circle. The value of embedding economic activity in social structures is

stressed and the importance of trust for economic development is highlighted. The relationship between trust, social capital, and innovation is then discussed and related to the need for more effective institutions to promote accountability in Tanzania. The study then closes with some ideas for future research and general thoughts about industrial development processes in Sub-Saharan Africa.

CHAPTER 2 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Introduction

The literature describing, assessing, and analyzing the influence of social relations and networks on innovation and entrepreneurship is conceptually rich in content and varied in context. The literature review below is divided into six sections and is followed by a description of the conceptual framework applied in this study. In the first review section, literature on the social dimensions of entrepreneurship is discussed in general terms. The second section focuses on the literature evaluating the importance of networks for innovation and economic development. The third section addresses the structural aspects of networks and these are discussed in reference to the concept of institutional thickness. In the fourth section, the importance of cognitive and agency-related dimensions in networks is reviewed. The literature on the role of trust in networks and for innovation is then detailed in the fifth section where the scales and mechanisms of trust applied in this study are introduced. The literature review closes with a critical review of the concept of social capital and its links to network studies and the trust literature.

The literature review is followed by a detailed explanation for and presentation of the conceptual framework used in this study. The framework integrates concepts from the sociological literature on institutions and the geographic literature on regional economic development and innovation. These two theoretical strands are woven together

to develop a conceptual model that allows for the deconstruction of the social relations among firms and within industries. In doing so, it is argued that the particularities of industrial development in regions such as Sub-Saharan Africa can be identified and the processes through which innovation occurs can be more thoroughly accounted for. In sum, the framework is an application of the embeddedness approach to development and it seeks to place individual or agency aspects of business networks on equal footing with their structural dimensions.

The Social Dimensions of Entrepreneurship

Hébert and Link (1988) summarized numerous scholarly perspectives on entrepreneurship and found that entrepreneurs assume a variety of roles as economic agents. Specifically, entrepreneurs facilitate innovation, organize resources, coordinate productive activities, assume risk, supply financial capital, lead industries, own businesses, and/or make critical business decisions within firms. Explanations for and assessments of entrepreneurial behavior abound – within theories of innovation and firm development (e.g., Schumpeter 1949, Casson 1982), in psychological and cultural analyses of economic behavior (e.g., Frese 2000, Aldrich & Waldinger 1990), and in regionally oriented studies examining how economic agents exploit local factor endowments (e.g., Marris & Somerset 1971, Buame 1996, Trulsson 1997). For others, entrepreneurship can best be explained through interdisciplinary research that integrates a variety of fields within a unified conceptual framework (e.g., Ripsas 1998). Such a theory, however, is a long way off.

Entrepreneurs are viewed here as flexible, responsive, and fast learning individuals able to identify, exploit, or create market opportunities in the face of

structural limitations or limited resources (Malecki 1997a). Entrepreneurship derives itself from a number of factors including: technical capacity, knowledge, and access to information. It is a locally embedded phenomenon shaped by culture, economic structure, and attitudes not readily transferable from place to place (Kristensen 1994, Malecki 1997a). Most importantly, entrepreneurship is a social process where information, ideas, and capital are mobilized with the intention of innovating the production system, diversifying the economic activities of the firm, improving quality, and/or increasing profit. This mobilization process is manifest in the communication networks, supply chains, and market connections entrepreneurs rely on in their daily business activities.

The Role of Networks for Entrepreneurship and Innovation

Networks are excellent frameworks through which one can explore, describe, and understand the social dynamics of entrepreneurship and economic change in a given context. With this understanding, the traditions, beliefs, values, norms, and conventions shaping the interactions among economic actors become clearer. This knowledge, in turn, helps us better account for the factors that facilitate or limit entrepreneurial behavior and economic development. Amin and Thrift (1993) view networks as social relations that are critical for understanding place, Granovetter (1985) calls them “embedded social relations,” and others view them as informal social institutions (Hechter 1990, Sjostrand 1993). These relations and institutions have normative and cognitive dimensions that influence day-to-day actions and the identities of those participating in them.

Network analysis is traditionally connected with communications research (Rogers 1976, Rogers & Kincaid 1981), literature on policymaking and power relations

(Knoke & Kaufman 1990, Smith 1994), studies on intra-firm dynamics (Burt 1992, 1997a, 1997b, Burt et al. 1994), and the field of inter-organizational relations (Mulford 1984). The focus of this literature is more about the communication flows in and the structure of networks (e.g., dyads, nodes, "holes") rather than the roles of agents in shaping them. From an economic perspective, the importance of networks has been demonstrated in numerous studies and research exploring technological change (Fuglsang 1993, Malecki 1997a, 1997b, Storper 1997) and industrial innovation (Powell 1990, Mytelka 1993, van Dijk 1993, Humphrey & Schmitz 1996). Global-to-local connections have also been elucidated through network-type analyses. Commodity-chain studies are prime examples of how networks can be utilized to make these connections (e.g., Gereffi et al. 1994, Gibbon 1997a, 1997b, 1998). Such analyses describe all the business interactions and factor-market connections related to a particular production system. These frameworks have been applied to a wide range of industries and contexts from the apparel industry in Asia (Appelbaum & Gereffi 1994) to the Nile perch fishing industry in Tanzania (Gibbon 1997a).

Networks are excellent sources of social interaction and by examining their use among entrepreneurs and business managers, scholars have achieved a better understanding of how innovation actually occurs. Numerous studies have demonstrated the importance of social ties or networks for entrepreneurship in both developed and developing regions (Powell 1990, Mytelka 1993, Malecki 1997b, Storper 1997). Case studies have described the use and extent of networks in Italy (Amin 1994b), the rural USA (Malecki & Veldhoen 1993, Malecki & Tootle 1997), New York City's apparel industry (Uzzi 1996), and among entrepreneurs in Pakistan and Brazil (Humphrey &

Schmitz 1998). These studies have demonstrated the value of networks for creating “Marshallian” economies (Amin 1994b, 1994c), the importance of “gatekeepers” or “key individuals” in networks (Malecki & Veldhoen 1993), the contribution of networks to agglomeration economies (Malecki & Tootle 1997), the importance of “embedded” or “special ties” and third-party actors in strengthening and expanding social networks (Uzzi 1996), and the influence of trust on business relations (Humphrey & Schmitz 1998). Networks create incentives for innovation (Powell 1990), support inventive and collective capacity building (Storper 1995, Malecki 1997a), and promote mutual learning (Humphrey & Schmitz 1996). Social interactions are critical means of learning (Guyer 1996) and innovation is a process of interactive learning (Hodgson 1998). In networks, social interactions enable learning and help transform individual understanding into collective knowledge. Storper and Salais (1997:295) view these learning and innovation processes as being driven by “chains of endogenous interactions producing mutually agreed to rules” or conventions. Moreover, collective learning is embodied in institutionalized networks and is a key source of long-run economic change (North 1996).

In Sub-Saharan Africa, network studies have explored a variety of activities and industries. In general, Mytelka (1993), Guyer (1996), McCormick (1996), and Pederson (1996) view strong networks of entrepreneurs as a necessity for indigenous capacity building, technological change, and industrial development in the region. Networks, as well as other collective economic relations, have been explored in Burkina Faso (Leifheit 1993), Ghana (Yankson 1996, McDade & Malecki 1997, Barr 1998, Lyon 2000), Kenya (King 1996, Seierup 1996, Ongile & McCormick 1996), Tanzania (Tripp 1996, 1997), and Zimbabwe (Sverrisson 1990). These studies have helped to explain how networks

develop in Sub-Saharan Africa and why they are often constrained by extra-economic institutions and conditions. Yankson's (1996) study of the Ghanaian aluminum industry and Ongile and McCormick's (1996) study of the garment industry in Nairobi demonstrate the problems of weak ties between network participants which can result when participants are dispersed, when demand for products is limited, and when there is poor access to resources. Alternatively, McDade and Malecki (1997) found an effective system of mutual assistance and information sharing (an "economy of trust") among entrepreneurs in Kumasi, Ghana; King (1996) has documented the collective efficiency of "informal" manufacturers in Kenya; Seierup (1996) found strong ties between network-connected entrepreneurs in rural Kenya; and Tripp's (1992, 1994, 1996, 1997) explorations of petty trade and savings cooperatives (*Upato*) in Tanzania have demonstrated the economic viability and resilience of entrepreneurial activities connected to cooperative networks of individuals.

Business networks also contribute to what Maskell and Malmberg (1999) call "localized capabilities." These capabilities comprise both the tangible – a region's infrastructure, natural resources, and trade regime – and the sometimes tacit – local knowledge, skills, social networks, and institutional endowments. Firms and regions accumulate and embed capabilities over time and these can be crucial factors driving technological change and innovation.

The institutional endowments contributing to localized capabilities are important considerations when studying the role of networks in industrialization. Endowments include the representations, conventions, norms, and routines that structure social interactions and influence the transmission of information between firms. They have "...

a directional effect on the efforts of firms in the region by supporting and assisting some types of knowledge creation while hampering or preventing others” (Maskell & Malmberg 1999:174). Moreover, this knowledge

tends to become embedded not only in individual skills and in the routines and procedures of organizations, but indeed in the *milieux* as such, or rather in the relations that connect different firms to each other and to the wider institutional context. (Maskell & Malmberg 1999:180)

Thus knowledge creation may be viewed as an interactive process where social relations help embed tacit information in the local business practices, networks, conventions, and norms utilized by firms.

Structural Components of Networks and Institutional Thickness

Social structures, such as informal and formal networks, are one kind of institutional carrier (Scott 1995). Scott (1994, 1995), in a more expansive definition of institutions, considers them to be stable and recurring patterns of behavior. Social institutions reveal regularity about collective behavior (Hechter 1990) while networks depend on regularity for effective collective behavior (Powell 1990). Well-functioning entrepreneurial networks, as informal institutions, are structures of economic relations embedded in the social, cultural, and political context (Granovetter 1985, Amin & Thrift 1993). Connections in these networks are extensive, mutual assistance is commonplace, and there is a dense complex of social ties. The density of network or interpersonal relations in part describes the “institutional thickness” of a particular place and tells us something about the stability and strength of the social structures available to the participants in an economic, political, or cultural activity (Amin & Thrift 1993, Zukin & DiMaggio 1990, Jessop 1997). When business networks and other economic institutions

are “thick,” collective learning, information sharing, and innovation are more likely among firms and enterprises (Amin & Thrift 1993, Malecki 1997a).

Amin and Thrift (1993) discuss the concept of thickness as it relates to a nation’s industrial development process. The concept is useful for explaining how social networks and relations of trust are established and continued among firms and actors in the industrialization process. Regions having “thick” layers of institutions generally exhibit innovative firm behavior (e.g., Marshallian economies), specialist networks, and epistemic communities with shared interests, attitudes, specialties, and commitments to particular policy agendas (Amin & Thrift 1993, Amin 1994b, 1994c). Information is key, but equally important is the process of institutionalization that ensures the long-term presence of these networks and patterns of behavior (Amin & Thrift 1993). Once established, these institutions become embedded through trust, common purpose, social consensus, or local support and this institutionalization process is facilitated or constrained by culture, politics, society, and the “cognitive processes of individuals” (Amin & Thrift 1993:419).

Agency Aspects of Networks

As Emirbayer and Goodwin (1994) note, the cognitive and agency dimensions of networks are poorly addressed when compared to the structural and normative factors shaping them. Cognitive characteristics are made up of representative and constitutive elements that enable individuals to act in social situations and facilitate the construction of meanings, identities, norms, rules, and routines in a social network (Scott 1994, 1995). These elements interact in an individual’s cognitive processes and are not governed solely by a desire to behave rationally. The interconnections or boundaries between the

cognitive (agency/individual) and normative aspects of networks (structure) are dynamic and context-specific. By examining cognitive processes in detail, it is possible to understand how patterns develop in a particular social or business network.

It is through cognitive processes that businesspeople construct “real worlds of production” (Storper & Salais 1997:293) and create organizational knowledge from a collective of individual minds (Hodgson 1998). This collective knowledge and these production “worlds” make up the “untraded interdependencies” (conventions) and collective capacities evident in entrepreneurial or innovative business networks (Storper 1995). Cognitive processes are especially important for constructing identities (Eisenstadt 1998), shaping perceptions (Storper & Salais 1997), giving meaning to and filtering information (Gale 1982, Burbank 1995), and deriving knowledge (Gray 1985). Moreover, cognitive processes significantly influence trust and legitimacy (Aldrich & Fiol 1994) and are critical for innovation and invention processes (Sjostrand 1993).

Cognitive factors also influence social orientations, business skills, and attitudes about network participation. Malecki and Oinas (1999), in their recent volume addressing some of the social issues shaping technological change and development in regions, find that social orientations are important factors driving learning and innovation. Other studies support this contention and offer interesting insight into the behaviors, ways, and means of economic agents in a variety of contexts. Malecki and Poehling (1999) demonstrate the differences in information-acquiring strategies among “introverts” and “extroverts” in rural Florida, Frese (2000) examines entrepreneurship in Africa from a psychological perspective and asserts that “orientation” is an important variable influencing performance in small enterprises, Seppala (1998) identifies three

agency-led economic strategies (accumulation, reproduction, and survival) used by villagers in rural Tanzania, and Trulsson (1997) explores the strategies of entrepreneurs in the Lake Victoria basin of Tanzania and finds that personal characteristics and attitudes are important both technically and socially. Trulsson, in particular, views entrepreneurs as critical agents of change in transitional economic contexts like Tanzania's. Thus it is important to examine the cognitive factors driving social orientations, strategies, and attitudes in order to better understand the dynamics of innovation and industrial change in a region.

The Role of Trust in Networks, Entrepreneurship, and Economic Development

Within networks, trust is a crucial factor that helps strengthen relations and improve the quality of the information exchanged through the network (Humphrey & Schmitz 1998). Granovetter (1985) views trust as a "cheap" but crucial factor for embedding social relations and ensuring future transactions. Dasgupta (1988) sees trust as a key factor shaping action in a business transaction that is driven by an individual's expectation of another's behavior. Platteau (1994a:550, 1994b:757) views trust as indicative of "convergent expectations" between two individuals and as a strategic "product" manufactured through close relationships between individuals. Trust is a critical aspect of network relations (Malecki 1997a), it simplifies the complexity of network interactions (Powell 1990), is an incentive for sociability (Mutti 1990), and is an "heuristic" governance structure that frames the social relationship between two individuals (Uzzi 1997a).

Trust becomes apparent when "unstandardized" information is "irregularly" exchanged between network participants (Malecki & Tootle 1996) or when "intangible

assets” are transferred between parties (Uzzi 1997a). This exchange of knowledge and the informality in which these relationships often exist are key pathways for cooperation and collective capacity building in situations where formal institutions are inadequate in meeting local information or service needs (Malecki 2000). Trust relations have been especially important for small-scale firms. Higher levels of trust nurture collective behavior and innovation while a lack of trust can discourage mutual cooperation (Widner 1991, King 1996, Seierup 1996). Determining the level and kind of trust existing in business relations is thus important for assessing the potential for innovation in a region or developmental context.

Platteau (1994a, 1994b) conceptualizes trust on the basis of two forms of morality: limited-group and generalized. Limited-group morality is “. . . restricted to *concrete* people with whom one has close identification while generalized morality is morals applicable to abstract people (to whom one is not necessarily tied through personal, family, or ethnic links)” (Platteau 1994b:770, emphasis in original). In essence, these differences reflect, respectively, a lower-order and a higher-order version of trust. If one’s morality is limited to those persons with whom one has a “primordial tie” (Geertz 1963) or a well established and tightly bound relationship, trust outside these groups is far less likely unless there is an opportunity for shared experiences between the individual and outsiders. Alternatively, if an individual’s actions are driven by generalized morality, there is “. . . a *predisposition* towards cooperation that may be activated by certain favorable circumstances and remain latent when these circumstances are absent” (Platteau 1994b:775, emphasis in original). Platteau is unclear about what these circumstances are but clearly they are dependent on the individual and his or her

cognitive process. Ultimately, it is the predisposition that is essential as it leads to improved communication channels in society, the broad construction of trust, and social cooperation.

On a broader scale, Platteau views the trust development process as path-dependent and evolutionary in nature. He sees the shift from limited-group to generalized morality as essential for successful economic development and believes that this can only occur if social norms emerge within society that explicitly link individuals to external agencies such as the state. Like Fukuyama (1995, 2001), Platteau sees religious beliefs and historical experience as crucial factors influencing this process and argues that the trust that emerges through generalized morality is critical for society in that it leads to the construction of “*abstract principles or rules of conduct*,” that help govern relationships outside one’s immediate acquaintances (Platteau 1994b:770 emphasis in original). Thus there is a higher-order belief in the proper way to conduct business and businesspeople can more easily ensure the reliability of transactions. Platteau views generalized trust as essential for economic development in that it encourages economic agents (e.g., entrepreneurs) to take risks, enables cooperation among a diversity of social groups, and ultimately facilitates the development of social capital and civil society.

Despite their theoretical richness, however, Platteau’s ideas are not easily operationalized as variables in empirical research. Humphrey and Schmitz (1998) offer a useful alternative that incorporates Platteau’s ideas into variables that reflect, in essence, different bases of morality. Specifically, Humphrey and Schmitz identify three levels or mechanisms of trust: micro, meso, and macro. Micro-level trust emerges from repeat

transactions and shared experiences between business partners. It is a function of an individual's confidence in the competence or capacity of another (Sako 1992, 1998). Meso-level trust is based on ascriptions or individual characteristics such as ethnicity, religion, appearance, speech, or race (Humphrey & Schmitz 1998). Macro-level trust relates to an actor's belief in laws and formal institutions and to what Sako (1992, 1998) calls "goodwill" trust. Goodwill trust is a form of macro-level trust driven by an agent's belief in the goodness of an individual or by his or her general trust in people.

These levels of trust can be linked to Platteau's concepts of limited-group and generalized morality. Micro-level and meso-level trust mechanisms relate to limited-group forms of morality and facilitate the formation of "close personalized relationships" and narrowly ascribed networks (Platteau 1994a:550). Gift exchange, shared success, observed competence, and other unambiguous forms of reciprocity are important for establishing micro-level trust and it is through such mechanisms that one is able to create a group of trustworthy individuals. Alternatively, groups can be formed through ascriptions, roles, identities, or other meso-level mechanisms that associate a person with a trustworthy identity (e.g., based on family, religious group, tribe, or caste). In both cases, limited-group morality is the basis for the establishment of trust, the major difference being the means through which membership in the limited group is achieved.

Macro-level or goodwill trust mechanisms relate to Platteau's (1994a) concept of generalized morality and to his belief that abstract rules and norms drive an individual to trust on a higher order. These rules relate not only to one's belief that formal institutions – namely the state – will protect his or her interests but also to more diffuse feelings about goodwill, professional behavior, and ethical responsibility. Such abstract notions

and morally driven norms are crucial for the existence of macro-level trust and “. . . act as a substitute for, or a reinforcement of, state-engineered rules or control mechanisms, with the result that enforcement and punishment institutions become of secondary importance” (Platteau 1994b:756). Thus macro-level trust can be associated with an individual’s willingness to trust through a sense of generalized morality. Figure 2-1 summarizes the three dimensions of trust applied in this study.

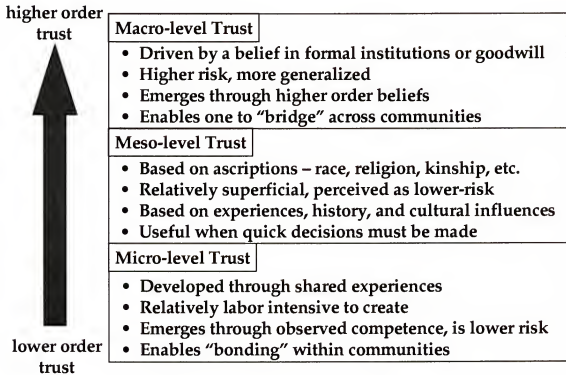


Figure 2-1: Scales and Orders of Trust Mechanisms (derived from Humphrey & Schmitz 1998)

Trust is important not only in its relation to the costs and quality of business transactions, but also because it offers a clear link to issues of agency in business relations. Each of Humphrey and Schmitz’s trust mechanisms – micro, meso, and macro-level – although influenced by social, cultural, and political structures (e.g., rules, norms,

conventions) – is ultimately driven by the cognitive processes of the individuals utilizing them. Especially important are representations of what a trustworthy person looks like, sounds like, and acts like; and constitutive notions related to a trusting agent's confidence in his or her ability to ensure the accountability of a trusted subject. By operationalizing trust at these levels, it is possible to better understand the role of agency in networks and the importance of trust for the innovation process.

Networks, Entrepreneurs, and Social Capital

Networks and trust are two key aspects of social capital. Social capital has emerged rapidly in recent years as an important influence on both scholarly and applied approaches to development. Most scholars supportive of the concept view it as a critical component of society that drives long-run economic change by facilitating the coordination of economic activities, encouraging collaboration across social, political, economic, and cultural divides, and institutionalizing cooperation in a society. This coordination, collaboration, and cooperation, in turn, lead to economic development, mutual trust in society, civic participation, and innovation (e.g., Coleman 1988, Putnam 1993, Fukuyama 2001). By most accounts, social capital is manifest in what Woolcock and Narayan (2000:226) call “norms and networks that enable people to act collectively” or is “embodied in norms and networks of civic engagement” (Putnam 1993:37). Collective action is a central component of social capital as it leads to the development of effective civic organizations, cost-effective economic activities, democratic political processes, and efficient communication and information channels in society (Coleman 1988, Putnam 1993, Bebbington 1997, Burt 1997a, Barr 1998, Woolcock 1998). In sum, social capital is a key ingredient in a healthy civil society (Hyden 1997).

Among firms, social capital is viewed as most visible in networks of information sharing, collective-action, and mutual exchange (Flora & Flora 1993, Malecki 2000, Woolcock 1998). Storper (1995) views the collective capacities and conventions developed in business networks as indicators of social capital while Woolcock (1998) sees social capital as the norms and networks facilitating collective action among entrepreneurs. Burt (1992, 1997a, 1997b) views social capital as an individual asset that entrepreneurs (mainly corporate managers or “players” in his studies) utilize to improve their standing in the firm, to give them control in exchange relations, and to increase their contribution to overall corporate performance. Lyon (2000) examined the use of informal networks among traders in Kumasi, Ghana and found them to be important contributors to social capital. Trust is a crucial ingredient in these relations as it enables them to become effective substitutes for inadequate formal institutions. Barr (1998) recently examined the relationship between enterprise networks and social capital among manufacturers in Ghana. Her findings demonstrate how firms benefit from using large, weakly connected, and diverse “innovation” networks in conjunction with smaller and more cohesive “solidarity” networks.

Entrepreneurial or business networks contribute to social capital most effectively when relationships are both dense within the local context and extended outside narrow communities and regions. Dense intracommunity ties enable “bonding” to occur and can lead to the formation of solidarity networks among small firms (Gittell & Vidal 1998, Barr 1998). Extensions, or “bridges”, open the network up to outsiders, newcomers, and influence from external (outside of the local context) relations (Gittell & Vidal 1998). These extensions include not only cognitive “leaps” between local communities but also

spatial extensions that connect the firm to other locales and regions. Extended links such as these fill “structural holes” in the network and create opportunities for entrepreneurs (Burt 1992). Social relations are “thick” in places with extended networks and in such cases it is less likely that relations will become overembedded in particularistic and/or exclusionary collective identities (Amin & Thrift 1993, Uzzi 1997a). Instead, extended networks create opportunities for firms and are, in essence, an economic example of what Putnam (1993) calls “multiple civic participation” (Uzzi 1997a, 1997b, Humphrey & Schmitz 1998).

Woolcock (1998) further proposes that autonomy, a key facet of his version of social capital, comes through networks having a larger number of extracommunity relations. Gittel and Vidal (1998) refer to such relations as “bridges” and Woolcock and Narayan (2000:230) characterize them as “weak intercommunity ties, such as those that cross various social divides.” Political interconnections are especially valuable for business networks as they help integrate economic activities into the sociopolitical landscape (Evans 1995), create channels for resistance (Tripp 1997), and enable an exchange of information with policymakers. Malecki (1997a) and McCormick (1996) stress the importance of external links in networks, mainly in an African context, to non-governmental organizations (NGOs), to donors, to regional and global markets, and to scholars and academics. They view these as important for inducing innovation, increasing inventive capacity, improving access to infrastructure, and influencing public policy.

Despite largely positive assessments regarding the role of social capital, some have argued that it does not always encourage innovation, trust, or social openness.

Where networks are loose or extended over great distances, the costs of non-reciprocal behavior may be insufficient to prevent opportunism or rent-seeking (Sjostrand 1993, Smith 1994, Nooteboom 1996, Humphrey & Schmitz 1998). In such situations, agents may expect immediate reciprocity for any type of exchange, even informational, and those needing access to capital and resources have fewer opportunities to build up their businesses. Alternatively, when networks are deeply embedded in narrow ascriptions, information access may be stifled and relationships outside of familial, ethnic, or kinship structures may be poorly established and cautiously maintained (Seierup 1996). Moreover, such narrowness can lead to extreme forms of intolerance and the development of such organizations as Fascist political parties or the Ku Klux Klan (Putnam 1993, Putzel 1997). Places, regions, and countries can become “locked in” to such belief systems, ascriptions, and social structures and the “unlearning” of these norms, attitudes, and routines may be an arduous process (Grabher 1993, Maskell & Malmberg 1999).

Numerous scholars have also criticized social capital because of the lack of definitional clarity and empirical support offered by proponents of the concept. Moreover, many are critical of its rapid adoption (cooption perhaps) by development institutions promoting neo-liberal economic policies (e.g., the World Bank) (Harriss & deRenzio 1997, Putzel 1997, Fine 2000). Harriss and deRenzio (1997) thoroughly critique the work of Putnam and others and conclude that such arguments are wholly misconceived and of little use analytically. Specifically, the authors attack conceptualizations of social capital for their diffuseness and their inability to account for issues of power and the means through which social organization is actually achieved.

Fine (2000) similarly argues that the social capital described in most mainstream approaches is achieved by merely pasting social structures (e.g., networks or norms) onto economic frameworks convenient for global development institutions. Moreover, Fine is troubled by the lack of information to explain how and why networks and social capital are created in the first place.

Another major criticism of social capital comes from the fact that most empirical studies of it focus on social structures (e.g., civic groups, industry organizations, and recreation clubs) and patterns of civic behavior (e.g., voting behavior or environmentally friendly practices) readily identifiable in a given context. Social capital is manifest in improved agricultural practices or natural resource management organizations (Bebbington 1997, Narayan & Pritchett 2000, Pretty & Ward 2001), evidenced in civic participation and a person's general feelings about honesty in her or his community (Putnam 2000), or is an outcome of tradition, religious beliefs, culture, and shared historical experiences within a community (Fukuyama 2001). Structures of social capital are the primary indicators of its existence and trust, acknowledged by most as a key ingredient in the creation of social capital, is simply an indicator of its existence, not a measurable factor leading to its development. Historical approaches, such as Putnam's (1993), paint a broad picture of the social, cultural, and political conditions that lead to the formation of social capital but provide us with limited insight into the cognitive processes that drove individuals in Italy's Emilia-Romagna region (in contrast to the Calabria region) to create social capital. Religious beliefs, culture, good government, and historical particularities are offered as causal factors but these amount to broad generalizations and "black-box" explanations for the process of social capital creation.

Criticisms such as these highlight the fact that although most scholars know what social capital looks like, few can tell us how individuals create it in the first place or how regions desperately lacking it can construct more of it in the short term. Instead, we are provided blueprints describing the stages involved in social capital's development but little information about how the pieces and parts were actually put together and why it was believed to be the best course of action for individuals in regions having lots of it. Such blueprints, as manifest in collective-action initiatives (e.g., micro-finance institutions and the Grameen bank), have been set upon by development institutions and pasted into development programs *en masse* despite there being potentially extensive limitations on these programs outside the contexts where they originated. Although the intention is admirable, the result may be less than satisfactory if there is an insufficient understanding of how collective action actually occurs in contexts "lacking" social capital and about what makes some individuals – namely entrepreneurs – more willing than others to take risks socially. In essence, what is missing from these studies is an accurate accounting of the role of agency. In particular, there is a need to understand what enables individuals to trust more widely in society or, as Platteau sees it, to shift their morality from limited-group to more generalized forms.

Business Networks as Embedded Institutions: A Conceptual Framework

The conceptual framework applied in this study situates networks and social relations within an heuristic model that demonstrates the broad range of influences on innovation and entrepreneurship. Business networks are viewed as being embedded in economic relations and influenced by political, social, cultural, and ecological factors. In this framework, networks are viewed as social institutions situated within and reflected

by the meaning systems and behavior patterns of the individuals participating in them. Networks, as institutions, have normative and cognitive dimensions that enable one to systematically explore and deconstruct them. In doing so, it is possible to identify and describe the social relations enabling innovation and knowledge creation within an industry. In conceptualizing networks through this framework, one is able to analyze the role of conventions, legitimacy, and trust in shaping the strategies used by entrepreneurs and business managers.

The conceptual framework is developed in four sections that follow. First, the importance of situating business networks in their local context is clarified through Yapa's nexus of production relations. Second, the main conceptual framework is presented with a detailed exposition of its primary components and characteristics. It is in this section that the conceptualization's applicability to studies of social capital becomes most evident. Third, the framework is situated or embedded in Yapa's model to demonstrate how such a conceptualization can be applied to examine the particularities of development in Sub-Saharan Africa. Fourth, the conceptualization is then extended to demonstrate how it accounts for the knowledge creation and innovation processes that occur in networks and through the social relations among entrepreneurs.

The Nexus of Production Relations

Yapa (1993, 1996a, 1996b, 1998) effectively describes the complex interconnections that result in innovations or new ideas through his explorations of the "nexus of production relations." Yapa's conceptual model connects academic, ecological, technical, social, cultural, and political relations to the production of an innovation. This framework, by his own account, is meant to be an heuristic tool for

understanding how innovations are created, diffused, and embedded in a given context (Yapa 1996b). Innovations are the outcomes of production relations and are inherently biased by them. Yapa (1993, 1996b, 1998) has examined an interesting range of “innovations” from the diffusion of high-yielding seed varieties to the diffusion of academic ideas surrounding poverty. In essence, his framework broadly structures the context in which individuals, firms, farms, industries, and political systems are situated. Despite its breadth, the relations of production categories are useful in that they account for the biases influencing technological innovations, policy-making processes, or economic development in places and regions.

Figure 2-2 depicts how Yapa’s nexus applies to this study. Within the nexus of production are the entrepreneurs and businesspeople innovating their products or production systems. In this modified framework, academic relations have been removed from the local context and directly connected to national governments, donors, and foreign aid organizations. This modification is supported by Yapa’s (1996b) assertion that scholars from or educated in the developed world have been largely responsible for the paradigms influencing national development and foreign aid policies in developing countries. Another modification involves the political and economic relations in the nexus. National and global economic and political relations are distinguished from those at the local level. This too is an important distinction as global markets, foreign policy strategies, and national political agendas drive donor, state, and NGO programs and, in turn, influence local production relations in developing countries. Most recently within Sub-Saharan Africa, these influences have been manifest in structural adjustment programs and lending conditionalities imposed by multinational financial institutions

such as the IMF. Beyond these macro-scale influences, it is also important to consider the role of outside actors, who through their agencies, organizations, and firms, may influence local economic relations by disseminating information, financing, training, or novel technologies.¹

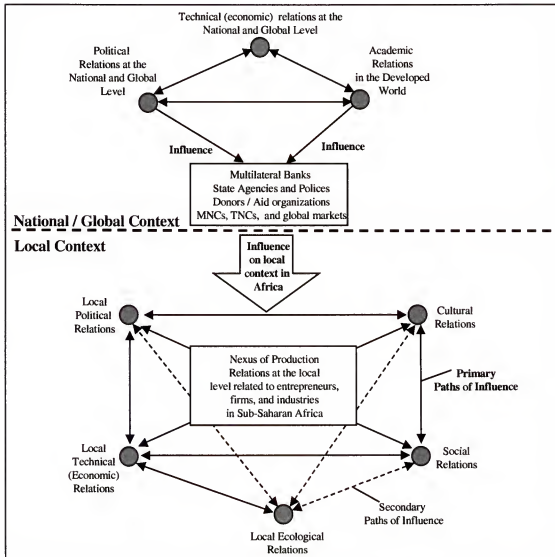


Figure 2-2: Yapa's Production Relations and the Industrial Context of Sub-Saharan Africa

¹ Donors, state agencies, and NGOs are behind many of these initiatives as they provide resources (e.g., subsidies, money, information, infrastructure) to entrepreneurs, organizations, and agencies at the local or sub-national levels. Through this resource provision or dissemination, these external organizations are able to influence local production relations.

Although this diagram more accurately reflects the development context of East Africa, it lacks an explicit operationalization of networks and fails to describe how these become embedded in cities such as Mwanza. Because institutions are critical aspects of Yapa's nexus, this conceptual model can be operationalized through the application of an institutional framework to each of the broad nexus categories. In doing so, it is possible to examine specific production relations in greater detail. Because the focus of the study is on the economic impacts of social or business networks, an institutional framework is applied only to the local economic (technical) relations observed in Mwanza. By using such a framework to analyze the economic relations among manufacturers in Mwanza, the institutional thickness of business networks can be assessed and the social processes through which individual manufacturers innovate, produce, and compete may be evaluated. This institutional framework is detailed in the section that follows.

An Institutional Framework for Business Networks and Economic Relations

Because effective networks depend on shared meanings and regularity for collective behavior (Powell 1990), they may be conceptualized as informal institutions. These institutions or business relations become embedded within the social context when the logic behind economic exchange is influenced more by the social structure than by the market structure (Granovetter 1985, Uzzi 1996). Transactions, or exchange relationships, are driven not only by opportunity costs and/or relative prices, but also by patterns, norms, and conventions in relationships, by mutual trust, and by individual cognitive processes that identify legitimate exchange partners (Sjostrand 1993, Humphrey & Schmitz 1998). Informal institutions, such as business networks, are thus more than rationality-constraining structures or transaction cost-reducing rules. They are,

in effect, what Scott (1994) views as meaning systems reflected in stable and recurring patterns of behavior. Figure 2-3 depicts the institutional framework developed and applied to deconstruct these meaning systems and behavior patterns, particularly as they were observed in the social relations among firms in Mwanza.

Conceptually, the process of institutionalizing a business network is influenced by structural factors in society and by the cognitive processes (the agency side) of the individuals establishing and using the network (Amin & Thrift 1993). Structurally, institutions are shaped by normative and regulative elements. The normative aspects of institutions account for collective rules, routines, and conventions. Normative elements are essentially societal expectations that contribute to the creation of social and individual identities. These also help determine appropriate actions for individuals and, in turn, for firms and industries. Regulative elements are the institutional “enforcement mechanisms” used to formally or informally sanction individuals and organizations when norms or rules are disobeyed (Scott 1994).

Cognitively, institutions are constructed and interpreted by individual-thought processes and self-representations. Scott (1995) categorizes these agency-driven factors as representative and constitutive elements. Representative elements relate to basic knowledge about readily observable phenomena, to fundamental “logics” driving behavior, and to common identities found in a given institution or organization. An important representative element is language. Dialects, words, and phrases are key symbolic elements influencing exchange relations and network interactions. Constitutive elements account for the influence of ego on actors’ decisions. These elements are

important because they influence how individuals perceive themselves and their capacities for action in a social situation (Scott 1994).

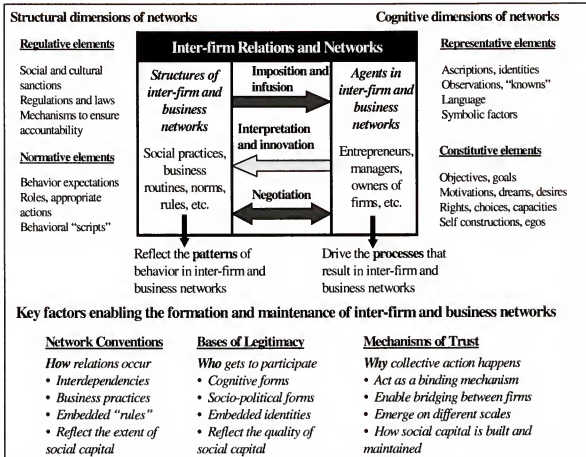


Figure 2-3: An Institutional Framework for Business and Inter-firm Networks

The structural and cognitive dimensions of networks reflect, respectively, the patterns of social behavior and the processes through which those patterns are established. Existing patterns or social structures are imposed upon individual agents' thought processes and these patterns infuse into individuals' ideas about society and the ways in which business interactions are to be carried out. In essence, these patterns reflect the "proper" way of doing things, the expected roles of individuals in society, and

the penalties afforded those treading outside established rules and norms. As North (1990:3) and other NIE proponents would have it, these structures are the “rules of the game of society” that drive individual behavior and function as pathways for economic development.

In order to fully understand institutions such as business networks, it is necessary to account for the ways in which individuals interpret and innovate the social structures made available to them. These interpretations and innovations are driven by the cognitive processes of individuals, reflected in representations of what is right, wrong, innovative, profitable, etc., and are significant influences on individuals’ perceived capacities for action in a social context. Constitutive notions that shape individual egos, motivations, capacities, rights, and goals are especially important in driving institutional change and the creation of social capital. One’s self-construction and capacity for action is, in large part, driven by his or her perceived social, political, or economic power and his or her ability to trust others. This is an important consideration and one that reflects the complex processes that drive social change and economic development.

Negotiation between individuals and social structures is viewed here as the process through which networks, social institutions, and social capital are created. Agents are vital to this process and they do not respond solely to price, cost, and information signals from the structures. Instead, some are more empowered to act and are thus more capable of producing social capital. Thus power, as manifest in the constitutive dimensions of this framework, is vital to the process of social change and social capital creation. By examining issues of power and self-construction, this conceptualization encourages researchers to avoid assumptions about and generalizations

regarding how agents will react to the imposition of social structures and institutions (e.g., laws, rules, and systems of doing business).

In operationalizing this framework, it is useful to break down networks into variables accounting for their structural and agency components. Three components of networks are found to be particularly useful in this regard: conventions, legitimacy, and trust. These elements reflect not only the quality of social relations and social structures in a given context, but also the willingness of individuals to participate in or innovate them for broader social or economic benefit. Moreover, conventions, legitimacy, and trust are important facets of social behavior that can facilitate or hinder the creation of social capital in a community or region.

Conventions drive day-to-day interactions and the routines businesspeople depend on in their exchange and production relations. They are endogenous social creations that underpin economic activity and contribute significantly to manufacturers' and entrepreneurs' abilities to share information, communicate, learn, and innovate (Storper 1995, Malecki 1997a). Conventions are structural components emerging from and relating to the norms, routines, and social regulations shaping relations. Moreover, they reflect the level of social capital available to firms and industries, are important for decreasing uncertainty, and may increase the efficiency of doing business. Conventions are explored here as the norms, rules, routines, and expectations evident in the business networks and social relations constructed and maintained by manufacturers in Mwanza.

Legitimacy determines in large part who does and does not participate in particular social relations (Jessop 1997, Storper & Salais 1997). A businessperson's basis of legitimacy (e.g., their wealth, social connections, ethnicity, and education level) can

greatly influence the quality of social ties available to her or him (Aldrich & Fiol 1994, Uzzi 1996). By examining the identities and representations that determine who and what are legitimate, we can better understand the forces behind innovation and entrepreneurship. Bases of legitimacy tell us something about what motivates entrepreneurs and what success and innovation truly mean (e.g., their representations of success and innovation) to these economic actors. Moreover, legitimacy tells us something about preferred behavior patterns and expectations and thus about the quality of the social capital available to individuals and firms in a particular context. Legitimacy is examined here as it relates to those symbolic factors associated with competence, trustworthiness, and reliability in business dealings.

Trust embeds and stabilizes networks or social relations for the long term. Trust is a key input to legitimacy (Aldrich & Fiol 1994) and is built upon the conventions situated in the local context (Storper 1995). Trust binds individuals together in informal institutions and explains in large part why collective action, mutual assistance, and information exchange take place. The levels and types of trust found in a network tell us much about the strength of the social relationships within it and, in turn, help us better understand the contribution of trust to innovation. Moreover, the trust mechanisms used by businesspeople reflect their perceptions on morality and their willingness to build social capital in their industry or community. Those favoring limited-group moralities are more likely to use micro or meso-level trust mechanisms while those favoring generalized moralities are more likely to trust at the macro level or based on goodwill.

Although this framework is broad by design, its applicability to the networks used by entrepreneurs and manufacturers is clear. The extent and quality of the social capital

available to a businessperson is reflected both in the structure of his or her social relations (e.g., the conventions) and in his or her willingness to innovate and improve these relations. If social capital is truly manifest in higher-order trust mechanisms (i.e., those based on generalized morality) and social networks that exhibit both bonding and bridging relations (as contended by Gittell & Vidal 1998), it is useful to assess the relationship between these characteristics and the level of innovation and performance achieved in a firm. In doing so, it is possible to more thoroughly evaluate the social capital available in a given industrial context and to assess more precisely how it contributes to innovation, entrepreneurship, and economic development.

Embedding Networks within the Nexus of Production Relations

Beyond the layers that define the institutional structure of business networks, there are other production relations that embed them in the local context. These influences, although external to economic relations, shape the *milieu* where networks exist. In essence, other production relations are threads that weave business and inter-firm networks into the social fabric. These relations and factors influence networks through the negotiation processes that take place between economic activities and the social, political, ecological, and cultural relations in which they are embedded. Actors, through their cognitive processes, interpret extra-economic influences and apply them in shaping the identities, norms, bases of legitimacy, and mechanisms of trust on which they rely when participating in business relations and networks. Figure 2-4 demonstrates these influences and highlights how networks are embedded within the nexus of production relations.

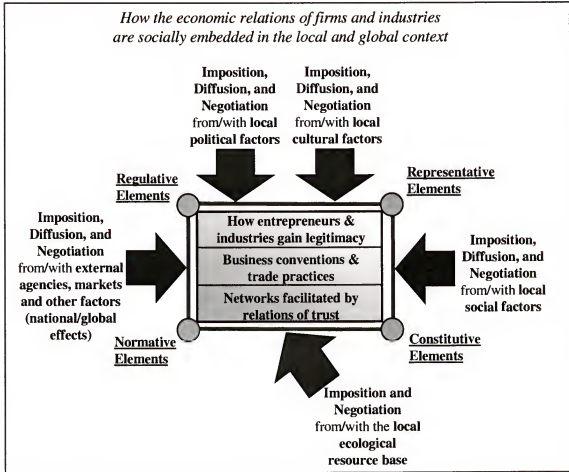


Figure 2-4: Embedding Firms and Industries in Yapa's Nexus of Production Relations

In real terms, extra-economic influences are context-specific and encompass a wide range of issues and factors. Influences from cultural relations (factors) may relate to ties of kinship, marriage, age, language, or religion (Geertz 1963, Hoben & Hefner 1991), the learned behavior passed down from generation to generation (Yapa 1993), or to cultural dimensions like power distance, collectivism, risk avoidance, or group loyalty (Dia 1996). Social influences can come from the stratification of groups (Ensminger 1992, 1997), be created through the power, control, or domination of one group or class over another (Knoke & Kaufman 1990, Guyer 1996), or be influenced by the educational

status and wealth of network participants (Seierup 1996, Seppala 1996). Local political influences may come from policymakers or authorities who hope to modify, institutionalize, or “freeze” certain relationships between social groups (Smith 1994) or they may originate in unequal resource transactions between the state and network participants (Knoke & Kaufman 1990). Ecological influences or elements may impose constraints on production relations through resource scarcities and hazards or create opportunities through surplus conditions.

Lastly, influences from other geographic locations and regions may play an important role in the embedding process. External elements can come from corporations, regional and global markets, or national governments, NGOs, and other aid agencies. Most of these organizations, institutions, and markets were established in the developed world and are thus influenced by theories and perspectives on economic development originating in those regions. External markets are particularly significant, especially for export-related industries or those industries facing competition from multinational or foreign-owned corporations. The combination of these external factors may or may not encourage collective behavior or the creation of trust among entrepreneurs.

Conceptualizing Learning and Innovation through Embedded Networks

Social interactions facilitate learning and the creation of collective knowledge in firms and industries (Hodgson 1998). Malecki (2000) stresses the importance of networks for knowledge creation and adaptive learning. This knowledge-creation process is driven in part by mutually agreed to, but often informal, social routines and conventions (Storper & Salais 1997). Collective learning is embodied in these conventions and in the institutionalized networks that emerge through consistent and

recurring social relations. Proximity matters – both cognitively and physically – as innovation is facilitated through face-to-face contact and when there is a shorter cultural distance between agents (Maskell & Malmberg 1999).

Learning through embedded networks occurs in two stages. First, there is the individual cognitive development that transforms or processes objective information into subjective information and individual knowledge (Fransman 1994). Second, there are social and network interactions that transform individual knowledge into collective and institutionalized knowledge (Malecki 1997a, Jones 1998). Hodgson (1998) views such institutionalized knowledge as context-dependent and culture-bound. Thus networks, beyond being structures for learning interactions, embody tacit knowledge and distinct competences adapted to collectively (Powell 1990, North 1996). Knowledge is found in networks mainly because learning and innovation occur through them.

Figure 2-5 demonstrates how networks and knowledge creation processes are embedded in the institutional framework and how they are connected to outside influences. This framework divides the levels of network-based learning into individual (cognitively based), collective (new knowledge obtained through network interactions), and structural (institutionalized or “old” collective knowledge embodied in normative and regulative elements) components. As the figure highlights, structural, collective, and individual aspects of knowledge and learning relate respectively to the conventions, trust, and bases of legitimacy evident in networks.

Conventions determine how the network or institution will incorporate new knowledge and how that knowledge is to be transferred from one participant to the next (Storper 1995). Conventions exist in the structural portion of the framework and include

key normative and regulative aspects of networks. Trust determines the willingness of individuals to transfer information into the network (Humphrey & Schmitz 1998).

Without the trust that is essential for interactive learning, innovations and information will diffuse more slowly within an industry or interest group (Hodgson 1998). Trust resides in and holds together the collective portion of the framework where individuals interact for mutual benefit. Lastly, bases of legitimacy identify network participants and activities worth listening to or participating in. Legitimacy gives power to knowledge, is shaped by regulative and normative elements in society, and is developed through the cognitive processes and sociopolitical activities of individuals (Aldrich & Fiol 1994).

When an innovation, piece of knowledge, or learning activity is legitimated, it spreads through the network at a faster rate.

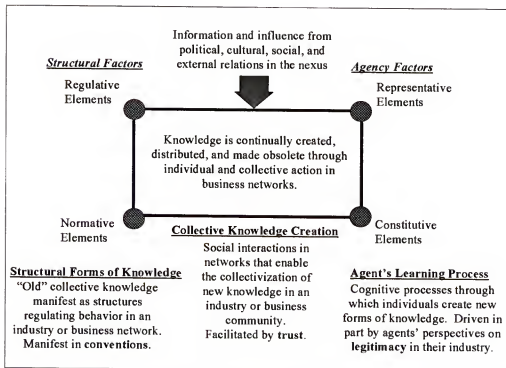


Figure 2-5: How Learning and Innovation are Facilitated through Social Networks

Summary

The conceptual framework demonstrates how innovation and knowledge creation are influenced by the conventions, levels of trust, and bases of legitimacy shaping the social relations embedded in a production system. The literature supports this contention through numerous and geographically diverse empirical studies on networks and through well-established theoretical foundations supporting the notion that economic behavior should be evaluated in terms of its relation to the social, cultural, and political relations existing in a given context. Using this framework as a foundation, variables assessing the role of social relations and networks were devised to assess their influence on innovation and performance in Mwanza's manufacturing sector. Details on these variables are provided in Chapter 3 followed by a description (in Chapters 4 and 5) of the context where the research was carried out. The conceptual framework is then applied to detail the function and structure of business networks in Mwanza, to develop a social typology of business behavior, and to draw out the ways in which business networks, and the levels of trust existing in them, influence performance and innovation within firms. Ultimately, it is argued that this model is useful for exploring social capital and its relationship to the construction and maintenance of innovative business networks.

CHAPTER 3 METHODS

Introduction

This study applies qualitative and quantitative research methods to evaluate the influence of social relations on innovation and entrepreneurship in Mwanza, Tanzania. As is true in many research projects, objectives and expectations shifted due to constraints not fully understood prior to arriving in the field. Despite these influences, the fieldwork proceeded smoothly as its major objectives were successfully achieved. Upon returning to the United States, transcription, coding, and analysis of the data yielded significant results and correlations between the variables of interest. The discussion that follows describes these methods, constraints, variables, and analysis techniques and provides personal perspectives about the realities and problems encountered during the research. The chapter is structured into eight sections: fieldwork preparation; industry selection and sample recruitment; the interview process; observations on the interview process; other sources of data; final hypotheses, data organization, and coding; scoring the variables; and testing hypotheses and constructing the typology.

Fieldwork Preparation

Prior to departing for the fieldwork, a proposal was developed around the premise that the study would investigate two distinct groups of businesses, one in the rural areas

surrounding Mwanza and one in urban Mwanza. The proposal was submitted to various institutions for funding and ultimately received support from the United States National Science Foundation in the form of a Doctoral Dissertation Improvement Grant (#9901026). This financial support made the fieldwork portion of the project possible and, consequently, a detailed methodological plan and interview guide were developed.

In creating the original research proposal, the major objective was to test for significant correlations between a businessperson's use of social relations, his or her willingness to trust, and performance and innovation levels in his or her firm. Another objective was to evaluate the general significance of business networks in Mwanza's manufacturing sector. The research design was qualitatively based and the plan was to gather data through interviews and observations, to then code responses in relation to the key social and performance variables, and to then apply basic statistical methods to test for relationships between these variables. Six hypotheses worthy of testing emerged from an interest in making more explicit the links between the behavioral characteristics of businesspeople and their abilities to innovate and succeed in industry. The original hypotheses were as follows:

H1: The number of innovations developed by businesspeople in Mwanza is positively correlated to their level of network participation.

H2: Enterprise performance is positively correlated to the level of network participation.

H3: Rural-based networks have more traditional bases of legitimacy (e.g. ethnicity, and kinship) than urban-based networks.

H4: Business performance is positively correlated to the level of trust existing in network relationships and to the degree to which businesspeople rely on networks for their production processes.

H5: Conventions in business networks are based on more than economic exchange.

- a) They provide important means of social interaction.
- b) They are important for the identities of businesspeople.

H6: External influences from donors, national governments, NGOs, and global markets have not been critical influences on the structure of business networks in Mwanza, Tanzania.

The basic plan was to arrive in Tanzania, to spend a brief period in Dar es Salaam conducting background research and obtaining a resident visa, and to then head to Mwanza to initiate the primary data gathering. Once in Mwanza, industries useful for studying were to be identified based on the following rough criteria: the number of accessible firms in the industry (a minimum of 25 urban and 12 rural firms); the industry's level of export production (one industry being a major exporter regionally or internationally); the industry's relationship with donors, the state, or NGOs (it was hoped that one industry would have connections to one or more of these kinds of organizations); and the level of growth in the industry (it was hoped that both industries would be expanding). With the right mix or pair of industries identified, the plan was to then recruit business owners and managers into the study and to conduct extended interviews regarding their use of and attitudes toward business networks and trust.

A survey was designed to take a multidimensional approach to the independent (e.g., network dependence, external links, trust) and dependent (e.g., performance, innovation) variables used in the study. Moreover, it was hoped that other social factors influencing the behavior of manufacturers and their firms could be drawn out through formal and casual observations within the city. In developing the interview guide for the field research, the ideas of Healey and Rawlinson (1993), Weiss (1994), and Yeung (1995) were found to be most useful. In general, the survey was developed to achieve the following objectives: to obtain demographic and background information on the business

owners, to acquire a recent history of the firm and a general overview of its daily activities, to draw out individual and firm-specific details about the social dynamics of business in Mwanza, and to identify the means through which businesspeople use such relations to their benefit. Interview questions were designed to explore not only the ways in which manufacturers conduct business but also to address the businessperson's perspectives, motives, and feelings toward issues such as trust, accountability, the government, and the competition. Details on the interview guide are provided below.

Business performance and innovativeness are the principal dependent variables and means of assessing these were readily found in the literature. Specifically, the work of Chandler and Hanks (1993) was applied in developing the performance-based questions and Sverrisson's (1994) work in Zimbabwe was most helpful in framing the questions related to innovativeness. The independent variables ranged from more conventional and concrete demographic data and background information to more ambiguous and broad issues such as a businessperson's trust mechanisms, his or her social connections, and his or her perceptions on legitimacy. The more complex variables were addressed through both direct and indirect questions designed with the hope of getting multiple perspectives on the issue of interest. The work of Lerner et al. (1997) was applied to develop questions on demographics (e.g., ethnicity, marital status, and family size), social learning characteristics (e.g., parental influences and socioeconomic status as a child), human capital (e.g., training, education, and work experience), motivations and goals (e.g., achievement, independence, and necessity), social connections (e.g., type, purpose, and importance for business), and general economic factors (e.g., markets, credit sources, and trade linkages). Business

connections and links were evaluated on the basis of Markusen's (1994) network categories: output, input, competitor, and institutional. The questions related to issues of trust and legitimacy were developed through the rich literature on these topics. Regarding trust, the work of Humphrey and Schmitz (1998) was particularly useful in shaping the trust-related questions and the construction of the trust variables. Legitimacy-based questions were based largely on the work of Aldrich and Fiol (1994). For both trust and legitimacy, questions were designed to be open-ended and to provide ample opportunity for respondents to identify novel issues and ideas outside the scope of the literature.

Beyond the dependent and independent variables, the research plan made arrangements for observations and documentation of the routines and conventions used in day-to-day business activities. Social routines and business conventions among manufacturers were to be observed and documented systematically during interviews and under more casual circumstances when traveling throughout the city. The focus of these observations would be on documenting the social interactions among competing entrepreneurs (their dynamics, purpose, and depth) and on detailing the routines related to the acquisition of inputs, the development of innovations, and the production, marketing, and selling of outputs.

Prior to departing for Tanzania, the interview guide was prepared and copies made for use in the field. Other arrangements were made, such as those related to health and logistical issues, and a meeting with colleagues at the University in Dar es Salaam was scheduled. Not surprisingly, the fieldwork deviated from the original (idealized)

research plan. The actual data gathering and analysis process are described in the sections that follow.

Industry Selection and Sample Recruitment

I arrived in Tanzania in October 1999, the day after Julius Nyerere, the first and long-time president of independent Tanzania, died in a London hospital. Beyond the historic dimensions of this event, it meant that the government would be shutting down periodically to make arrangements for his memorial service and burial. Fortunately, however, the government shutdown (for two days) and the national state of mourning did not prevent my obtaining the necessary clearance documents from the Tanzanian Commission for Science and Technology (COSTECH – the Tanzanian research bureau). With these arrangements made, there was little reason to remain in Dar es Salaam as there were few colleagues present at the University and few secondary data on industry available at government agencies. Thus I departed for Mwanza after only one week in Dar es Salaam. Once living arrangements were made in Mwanza, the process of industry identification and selection began.

Soon after arriving in Mwanza, it became apparent that a sample of rural manufacturers would be extremely difficult to obtain without a vehicle or the money to support the use of a vehicle. The research budget was insufficient in this regard, however, and public transportation was to be the only means of accessing respondents. The poor quality of the public transport system in Mwanza further compounded this problem. Buses and *dala dala* (local forms of transport via mini-van) are severely limited by horrendous roads, the high costs of petrol and diesel, and by the limited demand for transport outside the immediate urban areas. Moreover, the dispersed nature

of rural industries, and the need to conduct a series of interviews over extended periods, made a rural sample impossible to imagine within the time constraints of the study. Thus it was decided that time would be better spent obtaining a larger and more diverse sample from strictly within Mwanza's municipal boundaries. The rural-urban comparative portion of the research was eliminated and the focus of the fieldwork shifted to urban manufacturers only.¹

In selecting industries, informed individuals from NGOs, state agencies, vocational training institutions, and the Mwanza municipal government were interviewed and asked for suggestions regarding worthwhile industries to study. In general, there was little enthusiasm about the present state of industry in Mwanza and most of these individuals spoke of what once was and what could be in the future. When specific industries were mentioned, few suggestions were made beyond large-scale processors of fish and cotton. When asked about the many small-scale and informally structured manufacturers around town, few of the individuals thought them worthy of research. In general, there was a clear bias toward large-scale capital-intensive operations and small-scale or *jua kali* type firms were viewed as insignificant or illegitimate forms of manufacturing.²

¹ Fortunately, Seppala (1998) has filled much of this gap through his work in rural Tanzania on what he calls "village economics." Seppala's detailed study on the economic strategies of rural people in a poor community vividly describes both the agency and structural factors shaping the business activities observed in rural Tanzanian industries and households.

² The term *jua kali* comes from the Swahili words for "hot sun" and reflects the nature of the work performed by many small-scale manufacturers in the urban areas of East Africa. These small-scale craftspeople or *fundi* operate with little capital and in work areas often highly exposed to the natural elements and the authorities. Because many of these manufacturers do not pay taxes or license fees, they are considered informal. Moreover, these enterprises and firms are generally viewed with disdain by the municipal authorities who occasionally take repressive action against informal work areas and shop facilities.

Most importantly, these discussions demonstrated that the Nile Perch fishery was the only industry in Mwanza exporting on a large-scale and one of only a handful (e.g., cotton, mining) having more-formalized links to the government. Unfortunately, the export fishery in Mwanza was essentially shut down during most of the fieldwork due to the European Community's (EC) ban on imports of Nile perch. The EC ban was implemented when poisons (most likely from pesticides) were detected in Nile perch fillets that had been imported into Europe. The ban began in early 1999 and did not end until January, 2000. Because of this, most of the fish factories were shut down or barely operating throughout 1999 and this made research into the fish industry more or less impossible.

In assessing the remainder of the export-oriented industry options, it was clear that none was sufficient in number to meet the sampling requirements. It was then decided that it would be better to find a group of manufacturers large enough to demonstrate a wide range of sizes and levels of capital. Much was discovered about other manufacturing sectors in Mwanza simply by wandering the city's markets and industrial areas. In such places, a vibrant and diverse community of artisans and business owners was observed producing such goods as furniture, metal parts, bicycle seats, clothing, and soap. In particular, the furniture industry stood out as having a range of firm sizes – from informal and open-air operations to formal shops having separate showrooms and sales offices. The diversity of furniture-making operations, their distribution around Mwanza, and the variety of furniture designs being produced, provided a convincing argument for the industry's selection. Thus furniture

manufacturers were selected as the first group of respondents and a total of 29 are included in the final analysis.

The furniture maker sample covered a wide range of firm sizes, styles, and levels of infrastructure or capital. On the smallest scale were the furniture makers operating independently within cooperative arrangements. Fifteen (15) cooperative-type furniture making groups were sampled and each was viewed as a single firm. In the interview process, an individual or small group of individuals from the group were selected as representatives of the firm and its operation. The remainder of the furniture makers sampled worked independently in small operations or larger-scale firms. In these cases, the manager, managerial team, or person responsible for overseeing the daily activities of the enterprise was (were) the person (people) interviewed.

For the remainder of the sample, industries were selected having distinctly different ethnic and capital compositions than that of furniture. Because nearly all the furniture makers in Mwanza are indigenous Africans, a group of Asian manufacturers was desired in order to make some comparisons between their use of social relations and that of African businesspeople. Early on, metal-based manufacturers of Asian descent were focused on but after a number dropped out or refused to participate, it was necessary to expand the sampling into two other manufacturing areas – foam mattress making and cotton processing. These industries were selected because of their relatively high degrees of capital intensity and because they are largely dominated by Asian or foreign business interests. This enabled the maintenance of the non-furniture sample's integrity while increasing the overall sample size. Ultimately, it was possible to sample ten

business owners of Asian descent as well as two Africans owning and operating metal-based manufacturing firms.

It is important to note that the metal-based industries in this sample did not include informal manufacturers making metal stoves, kerosene lamps, or miscellaneous parts from scrap bits of material. Instead, the focus was on those firms owning machinery and having formal shop premises where production work is carried out. For the other capital-intensive industries, cotton processing and foam mattress manufacturing, the firms selected were large-scale operations having more than 25 employees. All four of these firms produce and sell their products locally through links to wholesale distributors.

The recruitment process involved an initial meeting to feel out the willingness of the respondent to participate. Once consent was granted from the respondent(s), formal meetings were held where the interview instrument was applied. Although respondents knew each other in many cases, snowball sampling was not necessary as manufacturing firms and cooperative groups were clearly visible and easy to access throughout Mwanza. The majority of participants owned firms or worked in groups located in the central business areas of the city although an effort was made to sample firms in outer wards.³ Public transportation was relied on to access these peri-urban firms while more centrally located operations were reached by foot.

Consent was achieved orally after respondents were read a brief overview of the research project and given a copy of the research clearance authorization from the Tanzanian government. After reciting the consent statement, respondents were given time to consider whether or not they would participate in the study. Most commonly,

³ Details on the locations of the respondents are provided in Chapter 5 and shown in Figure 5-1.

there were questions regarding remuneration for participation. In these cases, it was made clear to the respondent that there would be no payment for the giving of time to be interviewed. Most respondents were undaunted by the arrangement, quite friendly regarding my presence, and most willing to assist as best they could. After a respondent granted his or her consent, the formal interview process would begin in a few days.

The Interview Process

All told, in-depth interviews were conducted with more than 40 business managers, owners, and entrepreneurs in Mwanza. Questioning was consistent for all respondents and questions ranged from basic demographic queries to in-depth explorations of multi-dimensional concepts such as trust. The interview process was broken down into ten modules (or sections), each addressing a specific objective in the data collection process. Modules were organized around particular research themes and areas of interest. A sample of the guide can be found in Appendix A. A general outline of each module is provided below:

Module 1 – The oral consent statement and introduction to the study.

Module 2 – Questions to obtain demographic information and personal background. These covered the following characteristics and issues: age, ethnicity, languages spoken, home region, educational background, industry background and training, parents' occupation and wealth status, business start-up date, initial source of financing for the business, and the reasons why the respondent started this business.

Module 3 – Review of business routines, conventions, and daily activities. Questions focused on the following business activities: basic decisions about what and how much to make, initial financing for projects, market locations, marketing strategies, production steps, credit access mechanisms, labor routines, technologies utilized, quality levels or standards for production, shipping or delivery routines, production limitations or difficulties, and typical uses for profits.

Module 4 – Survey on recent performance in the firm. This area of questioning focused on business performance indicators including: production levels, sales volume, number of employees, product diversity, market access or extent, changes in shop size or location, changes in profitability, and changes in production technologies utilized.

Module 5 – Questions to assess recent innovations or technological changes in the firm and to evaluate the businessperson's orientation toward future expansion and innovation in the enterprise. Respondents were asked to give a detailed description of recent technical changes and innovations made to the firm's production system. General categories for innovations included: changes in supplier relations or access to inputs, changes in access to credit or capital, changes in infrastructure, changes in market access, changes in labor routines or labor relations, changes in basic production technologies (e.g., tools, machines), changes in access to information or ideas, vertical or horizontal integration of the production system, and any other positive technical or organizational changes not covered by these categories. After listing or describing these changes, respondents were asked to evaluate the general success of the enterprise in recent years, to provide any ideas they might have for improving the production system (i.e., future innovations), and to explain what the long-term goals are for their business.

Module 6 – Questions in this module were used to obtain detailed information about the businessperson's connections to different types of individuals (e.g., suppliers, customers) within and outside of Mwanza. The following categories of relations were focused on: input, output, labor, institutional, and inter-firm (local and non-local). For each relational type specified, the respondent was asked to provide the number of people known for each category and to rate the depth, frequency of contact, and level of trust for each type of relation. The strength of each relation was rated on a scale from zero to two. Relations as having little or no depth or trust scored a zero (0), average relations scored a one (1), and deep or high-trust relations scored a two (2).

Module 7 – The focus here was on general questions related to the importance of business relations for the firm's daily operations and success. Besides a general assessment of the usefulness of social relations, respondents were asked to identify the factor most important in encouraging them to start a new business relationship with someone.

Module 8 – Questions here focused on external linkages or outside factors influencing the activities of the businessperson. In particular, respondents were asked about the importance and influence of government policy, NGO and donor activities, national, regional, or global markets, and about any other external factors influencing the success or failure of the business.

Module 9 – Respondents were asked open-ended questions on a wide range of issues including trust, legitimacy, conventions, norms, ego, and motivations for

doing business. These questions were designed to break down the institutional framework into its normative and cognitive components and to more generally assess the role and importance of networks, trust, and legitimacy in Mwanza. Most importantly, this module was developed to draw out the ways in which trust is established in business, to evaluate the key identities, scripts, and motivations enabling and driving individuals to conduct business, to gauge the status of relations between the state and industry, and to assess the role of networks in influencing innovation. The module was organized into the following sub-sections: trust-related questions, legitimacy-related questions, network-related questions, symbols and representations, norms and regulations, and constitutive or ego-based factors.

Module 10 – Each respondent was asked to complete a ranking exercise in order to get a feel for the types of activities that require more or less trust. Specifically, respondents were asked to rank the following six activities in relation to the level of trust required to perform them: cash-based transactions, loaning money, providing market information to others, sharing tools or technology with others, sharing new business ideas with others, and discussing personal or family matters with others.

Because of the extent of the questions, interviews were broken up into three meetings once the consent agreement in Module 1 was completed. In the first meeting, the focus was on basic demographic and background data, business routines and conventions, innovations and technological change, and recent performance. If all went well in the first interview, Modules 2 through 5 would be completed and the respondent would be comfortable with the interview process. In general, the first interview lasted for about an hour and was the most straightforward of all the meetings.

The second interview focused on completing Modules 7 through 9. Module 6 was skipped over and left until the end of the interview process as there was concern that respondents would refuse to continue after going through the somewhat tedious process of quantifying and qualifying their social relations. In general, the second interview was the longest meeting, lasting about one-and-a-half to two hours depending on the respondent. If permissible, a tape recording was made of responses to the open-ended

questions in Module 9 and, fortunately, most respondents felt comfortable with its use.⁴ Despite the length of the second interview, most respondents were willing to schedule a third meeting, especially after they were promised that it would require only 30 minutes of their time.

The third interview was used to clarify any missed or misunderstood responses from the previous two interviews and to conduct the exercises in Modules 6 and 10. For the most part, these activities were easy although the concept of ranking (Module 10) was difficult for some to grasp. In terms of Module 6, the greatest difficulty was getting respondents to estimate the extent of their business connections somewhat accurately. In many cases, a respondent would toss out a large number with little consideration as to its accuracy. This gave me little confidence in the data created from Module 6 and thus they are not applied in the final analysis. Despite these limitations, the final meeting typically lasted about thirty minutes and most respondents were relieved by its brevity. After the final meeting, respondents were thanked for their assistance, addresses were typically exchanged, and, in some cases, photographs were taken.

Observations on the Interview Process

The interview process was grueling but successful in terms of the depth of discussion and the atmosphere within which conversations took place. The businesspeople who participated in the study were, for the most part, friendly and willing

⁴ One respondent, however, became agitated and very scared by the prospect of being tape-recorded and despite my willingness to continue without taping, decided to stop participating in the entire exercise. As was promised, he is not included in the sample presented here. Because I was frequently in his area of the city, I saw him on a number of occasions following the failed interview and we greeted each other amiably and at one point he even asked if we could continue the interview. I declined politely and thanked him for his interest. After this incident I became more cautious about using the tape recorder or about even showing it to respondents, particularly those who seemed uncomfortable with the interview process in general.

to assist in any manner they could. Interviews were generally conducted in a relaxed atmosphere and throughout the process efforts were made to gauge the respondent's comfort level. If there was apprehension, immediate efforts were made to ease the respondent's mind and to explain why such lengthy meetings were needed. In some cases, special arrangements were made to find agreeable meeting places, interview lengths, and meeting times in order to ensure that the respondent would continue for the duration of the survey.

Interviews were typically conducted on the premises of the manufacturing shop or factory with a few exceptions where meetings were held in cafés or other areas of the city. In some, more public, settings, my presence caused commotion. Fortunately, as the interview proceeded, most onlookers became bored and walked away. Workshop areas, especially among more informal or smaller firms, tended to be noisy as production continued as the interview progressed. This was only problematic later on as some tape recordings were a bit difficult to follow. In other cases, business demands on the respondent forced an interview to end abruptly. This was done without hesitation and another appointment with the respondent was scheduled for a more convenient time.

For most respondents of African descent, discussions were carried out in Kiswahili without the assistance of a translator. For these interviews, communication was a bit tricky at the beginning of the fieldwork. However, as more and more contacts were established, my communication skills improved dramatically and, by the end of the first month of fieldwork, I was able to work around occasional language-based misunderstandings. Kiswahili worked well in large part because it is a second language to most people in Mwanza. This circumstance reduces the complexity of the Kiswahili

spoken in Mwanza and limits the number of idiosyncrasies in the vocabulary heard there. Moreover, because the language is a *lingua franca* for business, most Tanzanians speak it to some degree.

For non-African respondents, all of Asian descent, English was the language of choice and Kiswahili was used on only one occasion.⁵ Asian respondents were generally uncomfortable with interviews and, on one occasion, I was asked to leave a workshop when trying to start a second interview. Moreover, writing things down in front of Asian respondents was problematic and tape recording, or even asking for permission to tape record, was not an option. In two cases, I was forced to memorize the interview guide, apply it from memory in discussions with the businessperson, and then scramble to write out responses in a secluded place after the interview.

For all interviews, no attempt was made to transcribe entire responses. Instead, key points and main ideas of the discussion were noted clearly and concisely as the interview proceeded. Despite the limitations on this method in terms of content, it allowed for sufficient analytic depth while making the data recording process manageable for forty or more respondents. Moreover, this method kept the interviews moving forward at a reasonable pace. After each interview, responses were reviewed and broader or missing information was filled in where possible. If further clarification on a response was required, it was noted and an attempt was made to reconcile the discrepancy at a subsequent meeting.

The interview system functioned effectively and at times it was possible to cascade up to four meetings during the course of a single day. The bulk of the

⁵ The exception was an elderly Asian who was born and raised in Tanzania. His English-speaking skills were limited and he usually felt more comfortable speaking in Kiswahili.

interviewing took about eight weeks with another six or so needed to “mop up” those respondents who proved tricky to access after an initial interview. In a number of cases, only first interviews were completed and it was a struggle to get some respondents to commit to additional meetings. A common ploy among these businesspeople was to push me off week after week until my time in Mwanza ran out. Delaying the undesirable was simply a polite way of telling me to stop trying.

Another minor problem related to the expectation, on the part of some respondents, of remuneration at the end of the interviews. Fortunately, this problem arose on only a few occasions since the consent agreement clearly stated that there would be no payment or gifts given for participation in the study. In the few instances where respondents complained, compromise was sought and conflict avoided through negotiation and friendly conversation. In only one instance was an interview completely stopped, in that case because the respondent demanded a gift (*kitu kidogo*) before he would continue to answer questions. This respondent and all others who prematurely stopped the survey process are excluded from the final analysis.

The greatest difficulty faced in conducting the interviews was getting respondents to be present when meetings were scheduled. After the initial introduction or any interview (except the third), arrangements would be made to return to the shop on a particular date and time. More often than not, at the prearranged time, the respondent would be surprised to see me, overloaded with work, or simply not present. This is an interesting finding in and of itself as the vast majority of respondents, regardless of their ethnicity or race, did not write down appointments. The general feeling was that you should “come any time and if I can do it, we’ll talk. Otherwise, you can always come

some other time.” This system, or lack thereof, wreaked havoc with the sampling schedule and forced, it is estimated, the making of two trips for every one interview. Through perseverance and, in some cases, sheer pestering of a respondent, it was possible to complete a sufficient number of interviews to make the data analysis statistically viable.

All told, participants in the study were extremely helpful and gracious throughout the fieldwork. Despite busy schedules, and the difficulties many face in making ends meet, these businesspeople were willing to spend time meeting and talking with me about their activities. Some were excited at the prospect of the Tanzanian government reading the “report” and then changing some of their policies toward small business.⁶ A few respondents, typically well-educated and larger-scale business managers, understood the importance of basic research and were willing to cooperate for the sake of knowledge alone. Most, however, were simply being polite to an outsider who wanted to understand what they do and how they do it. The honesty and openness of most respondents astounded me as opinions, attitudes, feelings, and perceptions on a number of questions were expressed with clarity, confidence, and depth.

Other Data Collection Methods

In addition to in-depth interviews and discussions with informed individuals in Mwanza, data were recorded from formal and informal observations. Observations were used to comment on daily life in Mwanza, to document events and incidents observed around the city, and to detail the workings of industries and enterprises. Approximately an hour each day was spent recording observations and writing out preliminary thoughts

⁶ A short summary report will be sent to respondents at the conclusion of the dissertation review process.

and findings. Although these observations were not formally coded in the data analysis phase, they provided reference material about Mwanza and its manufacturing sector.

Informal observations were arranged chronologically and had no particular requirements in terms of subject matter or content. Initially, these observations were used to document the extent and diversity of industrial activity in Mwanza. As the study progressed, they became more useful for recording events and incidents observed around town. Most importantly, however, informal observations allowed for “freestyle” explorations into theoretical and conceptual ideas.

Formal observations were recorded in a logbook separate from informal observations and were organized on a firm-by-firm basis. A series of observations was made for each enterprise and included the follows areas: name of owner/manager, firm location (with a hand-drawn map), workshop or factory layout (with a hand-drawn diagram), extent of infrastructure, number of employees or workers observed, extent of tools and/or machines, quality of the work area, extent and quality of the work done, level of activity in the shop, level of traffic (foot and auto) near the shop, the interviewee’s seriousness about business or his or her business attitude, the firm’s integration of other activities, the office conditions, general observations on the innovativeness of the businessperson, notes on the interview, notes on the use and quality of language, and general notes on the dynamic between the respondent and the interviewer. Formal observations were coded in the data analysis phase and found to be most useful in helping to confirm information recorded during the interview process, particularly those data pertaining to a firm’s operations and performance.

Final Hypotheses, Data Organization, and Coding

With the fieldwork complete, the project shifted to the data analysis phase.

Because of changes to the original, idealized, methodology, it was necessary to modify the hypotheses initially developed. Specifically, the hypothesis comparing rural to urban firms (formerly H3) was eliminated, the hypotheses relating trust to performance and (formerly H4) were modified to separately account for the different types of trust mechanisms (micro, meso, and macro-level), a hypothesis was added to test the relationship between trust mechanisms and innovation, and the hypothesis testing the relationship between external influences and entrepreneurial networks (formerly H6) was modified to test the significance of the specific relationships between external links and performance and innovation. Moreover, the new external link hypotheses (now H4 and H5) were restated in the positive to maintain consistency and to limit confusion in the data analysis discussion.⁷ Lastly, the hypothesis relating conventions to social interactions and identities (formerly H5) was analyzed qualitatively while all other hypotheses were tested using formal statistical methods. The particular analytic processes used in testing the hypotheses are described below. The final seven hypotheses tested were as follows:

H1: In Mwanza, the conventions observed in business networks are more than cost reduction mechanisms, they provide important mechanisms for social interaction and are important for identity formation among businesspeople.

H2: In Mwanza, enterprise performance is **positively correlated** to a businessperson's level of dependence on networks.

H3: The number of innovations developed by a businessperson in Mwanza is **positively correlated** to his or her level of dependence on networks.

⁷ Although the original hypothesis was stated in the negative, there was no clear justification or reason why it had to be stated in such a manner. Moreover, the data collection methodology did not favor an analysis of either negative or positive relationships between external links, performance, and innovation.

H4: In Mwanza, a businessperson's external link score is **positively correlated** to the performance of his or her enterprise.

H5: In Mwanza, a businessperson's external link score is **positively correlated** to the number of innovations developed by the businessperson.

H6: In Mwanza, an enterprise's performance is **positively correlated** to the owner or manager's use of a trust mechanism. Each trust mechanism is tested individually, micro-level trust in hypothesis H6.1, meso-level trust in H6.2, and macro-level trust in H6.3.

H7: In Mwanza, the number of innovations observed in an enterprise is **positively correlated** to the owner or manager's use of a trust mechanism. Each trust mechanism is tested individually, micro-level trust in hypothesis H7.1, meso-level trust in H7.2, and macro-level trust in H7.3.

Before beginning the formal analysis of these hypotheses, the field notes and interview data were transferred from hardcopy into a Microsoft Access® database. The database is organized in terms of the questions and interviewees and is most useful as it permits the relatively easy exportation of observations and responses. With the database complete, text files were created for each interview and these were then imported into a qualitative data analysis program, NUD*IST®, where the process of coding could be managed more easily.

Prior to starting the coding process, codes were formally developed and operationalized. Codes were developed for the independent variables of trust, network dependence, and external links and for the dependent variables of performance and innovation. In creating these codes, references were made to numerous qualitative data analysis texts including: Miles and Huberman (1994), Bernard (1995), Coffey and Atkinson (1996), and Boyatzis (1998). These authors provide useful guides for creating and applying codes to semi-structured and open-ended data. Appendix B provides details for each code including the definitions, descriptions, and categories used in applying

them in the data analysis. Table 3-1 summarizes the codes and scoring system while more detailed descriptions of each variable are provided below:

- **Trust** – An independent variable coded for when references were made to one or more of the following: the means through which a person can be trusted, the reasons why a person cannot be trusted, the types of people who are and who are not trustworthy, and the ability of the respondent to protect him or herself from someone trying to cheat in a business deal. Trust was coded for within three sub-categories: micro-level, meso-level, and macro-level trust.
 - **Micro-level trust** – coded for when the respondent referred to trust as being established through shared experiences, repeat transactions, or based on the competence of the another person. Trust based on a person's reputation is included here.
 - **Meso-level trust** – coded for when references were made to the use of ascriptions or narrowly defined criteria as the means through which the respondent knows they can trust someone. Examples of these ascriptions and criteria include: ethnicity, race, home region, age, and appearance.
 - **Macro-level trust** – coded for when the respondent made reference to the use of the government or legal system to protect his or her business interests or when the businessperson viewed trust from a goodwill perspective. Goodwill perspectives stem from higher-order beliefs regarding the general goodness of human nature.
- **Network dependence** – The independent variable network dependence was coded for when references were made to the use of relationships in business. These references and relations were subdivided into four categories: input, output, inter-firm (e.g., competition), and institutional relations.
- **External links** – The independent variable external links was coded for when respondents made references to business connections maintained with people residing outside the Mwanza region. These links were coded for in terms of the different regions where the contact is maintained. Regional categories included: Other Lake Victoria regions (excluding Mwanza), other Tanzania regions, East Africa (including Kenya, Uganda, Burundi, and Rwanda), other Africa, Europe, Asia, and North America and other regions.

- **Performance** – Performance is a dependent variable coded for when respondents referred to successes and failures in their business activities. Successes and failures were subdivided into the following categories: production output and capacity, sales volume, number of employees, markets sold to, product diversity, size of shop and quality of location, profitability, and technological changes.
- **Innovation** – Innovation is a dependent variable coded for based on the innovations a respondent stated having made. Innovations were divided into two key categories: dependent (responsive) and independent (creative). Dependent or responsive innovations are those achieved as a result of external influences that forced changes to occur in the firm's operations. For example, responsive innovation might occur if a businessperson loses his or her lease on a workshop premises but then successfully relocates to a better equipped or located workshop. In general, responsive innovations are oriented toward a firm's short-term performance, not its long-term development. Independent or creative innovations, however, are those desired improvements to the firm that are independently achieved and driven largely by the desire of the businessperson to increase the long-term profitability of the enterprise.

The coding process was fruitful in revealing regularity and consistency in the data. Most revealing were the codes retrieved from the open-ended questions in Module 9. Rough coding categories were applied on a first pass through the data while a second pass was used to create specific references within the major codes. These subcategories, or minor codes, directly reflect conditions, circumstances, and language in the Mwanza business environment. The subcategories or minor codes developed in the analysis phase are provided in Appendix B and organized in relation to their major codes.

NUD*IST® software was utilized throughout the coding process and found to be most helpful and flexible in providing a coherent structure for the data analysis. Moreover, NUD*IST enabled the exportation of coding tables once review of all the interview text files was complete. These tables were then evaluated to eliminate redundancy in the subcategories and to ensure that all were conceptually accurate. Once

the final subcategories were determined, scores were calculated for each independent and dependent variable and were then statistically compared across the sample.

Scoring the Variables

Once the coding was completed and the subcategories determined for each variable, scoring was achieved through the use of spreadsheet-based calculations. In general, the number of distinct references made by each respondent to each variable was summed and then compared to the scores for all respondents. Once the scores were calculated it was possible to conduct statistical analyses to isolate specific types of businesspeople and to perform basic correlation tests between the dependent and independent variables. The scoring methods for each variable are summarized below.

Most of the scores were calculated in relation to the sample as a whole in order to increase the internal validity of the findings. To do this, most scores were divided by the median score of the variable for the sample as a whole. The only scores not “normalized” in this fashion were the innovation scores. These are raw scores based on the discrete number of changes or improvements the businessperson made to his or her production system. The raw number of innovations was used because there were few concerns about internal validity due to the relatively unambiguous nature of those changes classified as innovations. Other variables in the sample (e.g., trust, success, failure, links, relations), can be more ambiguous and it was thought that their validity might be increased through normalization. The scoring method for each variable is described below.

- **Micro-level trust score** – The sum total of the number of references made to different versions of micro-level trust divided by the median total for all respondents.

Micro-level trust score = (Total # of references to micro-level trust/Median # of refs)

- **Meso-level trust score** – Sum total of the number of references made to different versions of meso-level trust divided by the median total for all respondents.

Meso-level trust score = (Total # of refs. to meso-level trust/Median # of refs)

- **Macro-level trust score** – Sum total of the number of references made to different versions of macro-level trust divided by the median total for all respondents.

Macro-level trust score = (Total # of refs. to Macro-level trust/Median # of refs)

- **Network dependence score** – The network dependence score was calculated as the product of the range of social relations the businessperson relies on and the number of specific relations the businessperson made reference to during the interview. Each distinct relationship was scored as one point and each was confined to one of the following categories: output, input, inter-frim (competition), and institutional. The total number of relations for each category was calculated and divided by the median total for each category and then summed and averaged to get a raw relations score. Each businessperson was then assigned a range score based on the number of relationship categories utilized. The maximum range score was four. This range score was applied as a power factor from zero to one based on the number of categories satisfied out of a maximum of four. The network dependence score was then calculated by multiplying the raw relations score by the range power factor.

i) Relations score in each category = (Total # of relations in category/Median # of relations in category)

ii) Raw relations score = Average of relations scores for all categories

iii) Range power factor = (Number of categories having relations/4)

iv) Network dependence score = Raw relations score * Range power factor

Table 3-1: Summary of the Coding and Scoring System

Variable	Basis for Coding and Score Calculation
Performance Score	The performance score is based on the respondent's stated successes (improvements) and/or failures (problems). The performance score was calculated as the number successes less the number of failures in relation to the following business characteristics: <i>Production output and capacity; size and quality of shop or facility; sales volume; profitability; number of employees; technological changes; markets accessed; product diversity</i>
Responsive Innovation Score	The responsive innovation score is the total number of responsive innovations coded from the interview and observation texts. Responsive innovations include: <i>Adaptation to new markets due to loss of primary customers; external financial assistance for innovation; product diversification through imitation; rented machinery; adaptation to forced move or eviction</i>
Creative Innovation Score	The creative innovation score is the total number of creative innovations coded from the interview and observation texts. Creative innovations include: <i>Labor force increase or independent innovation in use of labor; independent productivity improvements; independent product development; independent capital or machinery acquisition; vertical integration of production system; independent shop location or size improvement; use of formal marketing strategies or distributors</i>
Network Dependence Score	Based on the number of social connections an entrepreneur has to suppliers, customers, competitors, and formal organizations (institutions) such as the state or non-governmental organizations (NGOs). The score is determined as the product of the number of business connections and the range of the relations (a score from one to four based on the number of relation categories connected to – supplier, customer, competitor, or formal organizations).
External Link Score	Based on the number of social connections an entrepreneur has to people outside Mwanza. The score is determined as the product of the number of outside business connections multiplied by the range of the external relations. A range point was awarded for each external category if the entrepreneur had at least one connection to the region specified. Regional categories include: <i>other Lake Victoria, other Tanzania, East Africa (Kenya, Uganda, Rwanda, Burundi), other Africa, Asia, Europe, & North America and other regions.</i>
Micro-Level Trust Score	Based on the sum of the references made to trust developed at the micro level. Micro-level trust was coded for if the respondent mentioned the importance of shared experiences, competence, reputation, or repeat transactions for building trust.
Meso-Level Trust Score	Based on the sum of the references made to trust at the meso level. Meso trust was coded for if the respondent mentioned the importance of the following ascribed characteristics for trusting or not-trusting someone in business: <i>Race, Religion, Ethnicity, Wealth or Success, Home Region, Business Location, & Appearance</i>
Macro-Level Trust Score	Based on the sum of the references made to trust at the macro level. Macro trust was coded for if respondents referred to trust as being driven by goodwill or ensured by a higher power (e.g., religious beliefs), if the respondent believed that the government can be a trusted business partner, and/or if he or she stated that government institutions can be trusted to protect business interests.

- **External link score** – This score was calculated in a similar manner to that of network dependence but was based on the seven categories outlined above: Other Lake Victoria regions (excluding Mwanza), other Tanzania, East Africa (i.e., Kenya or Uganda), other Africa, Europe, Asia (Middle East), and North America and other regions. An external link score for each category was calculated as the number of distinct relations referred to within each region. The total external link score for each respondent was then calculated as the sum of all raw external link scores. The external link range factor was calculated as the number of areas where the businessperson has links divided by the total number of categories possible (seven in this case). The factored external link score for each respondent was then calculated as the product of the range factor score and the total external link score.

i) Raw external link score for each category = Total # of distinct links in cat.

ii) Total external link score = Sum of the raw scores for all categories

iii) Ext. link range factor = (Number of categories having links/7)

iv) Factored ext. link score = Total ext. link score * Ext. link range factor

- **Performance score** – Performance scores were calculated as differences between a businessperson's successes and failures. Successes and failures in firms were determined using the following categories: production output and capacity, sales volume, number of employees, markets sold to, product diversity, size of shop and quality of location, profitability, and technological changes. A performance score was calculated using a success and failure ratio score. Each ratio score was calculated by dividing a firm's total number of successes (or failures) by the median number of successes (or failures) for the overall sample. The failure ratio was then subtracted from the success ratio and a respondent's overall performance score calculated. Unlike the other variables, both positive and negative performance scores were possible.

i) Success ratio score = (Total # of successes/Median # of successes for sample)

ii) Failure ratio score = (Total # of failures/Median # of failures for sample)

iii) Performance Score = Success ratio score – Failure ratio score

- **Responsive and Creative Innovation scores** – Innovation scores were split into creative and responsive categories. The scores for each type of innovation were determined simply as the sum of the respective types of innovations achieved by each respondent.

i) Creative or independent innovations = Sum total for each respondent

ii) Responsive or dependent Innovations = Sum total for each respondent

Testing the Hypotheses and Constructing the Typology

With scores calculated for each variable, the data analysis shifted to testing the hypotheses and to creating a social typology of firms. Hypotheses H2 through H7 were amenable to regression tests while H1 was tested using purely qualitative methods. Although the typology emerged through simple analysis of the variable scores, its statistical significance enabled it to be applicable throughout the study. A brief description of the hypothesis tests and the typology's construction follows.

Descriptive statistics were initially used to assess the sample on an industry-by-industry basis (i.e., furniture versus non-furniture) and on the basis of ethnicity (i.e., Asian versus African). This was done to determine whether or not these groups were better served as separate populations. Because significant differences between the groups were not revealed, hypotheses were tested on the sample as a whole. This method was preferred as it increased the sample size, improved the quality of the statistical analysis, and enabled a more open-ended evaluation of the sample – namely one unrestricted by ethnic or industry considerations.

A correlation table for all the variable scores was constructed to test hypotheses H2 through H7 and to identify other significant relationships within the sample. Correlations were calculated using a regression algorithm in Microsoft Excel®.

Correlation coefficients (r values) were computed and applied to describe the general relationships between the variables. The significance of these values was then tested using a simple ANOVA (analysis of variance) procedure in Excel®. Specifically, P -values were computed from F and t -statistics to demonstrate the significance of the relationships among the variables. Scores for the variables and a detailed discussion of the results of the statistical tests are provided when appropriate in the chapters that follow.

Hypothesis H1, which asserts that business networks have extra-economic value, was evaluated by detailing the institutional elements observed in three types of business relation observed in Mwanza. Specifically, it was found that relations are critical for accessing credit, building reputation, and gathering information. Using field notes, interview responses, and miscellaneous observations, conceptual models (similar to that shown in Figure 2-2) were constructed to show the key influences shaping these relations. The conceptual descriptions are effective in deconstructing the relationships among manufacturers in Mwanza and in elucidating the reasons behind these relations. Identities, bases of legitimacy, conventions, representations, and mechanisms of trust are drawn out for each type of relation and the conceptual models demonstrate the importance of accounting for both structural and agency-related factors in networks. Each relational model is presented in Chapter 6 along with a detailed narrative describing its content. In sum, the models demonstrate qualitatively how network relations are complex, dependent upon individual cognitive processes, and how they cannot be explained solely by rational or cost-based theories.

In order to develop a social typology of manufacturers in Mwanza, it was necessary to subdivide the respondents into groups based on their relational characteristics. The network dependence, external link, and macro-level trust scores were used to create the groups as these variables reflect an individual's openness to outsiders and new ideas and because they are indicative of his or her reliance on social relations. To create the three groups, respondents' network dependence, external link, and macro-level trust scores were compared to the mean scores for the sample as a whole. Respondents scoring greater than the mean in at least two out of three of these categories were considered most outward-oriented and were classified as *maximalists*. Those respondents scoring greater than the mean in only one of the categories were classified as *pragmatists*. Respondents in this group put an average amount of emphasis on the building and maintenance of social relations and trust. Lastly, those scoring less than the mean in all three categories have little outward orientation and generally low levels of trust in others. These businesspeople were classified as *minimalists*.

The three groups exhibit a difference in means for their macro-level trust, network dependence, and external link scores significant at the 0.10 confidence level.⁸ Differences in means and their significance were computed in a two-step process. First, an F-statistic was calculated to test whether or not the variances between the variables in the groups compared were significantly different. Second, a one-tailed t-test was calculated using the assumption of equal variances or unequal variances depending on the outcome of the F-test. Details on these statistics are provided in Chapter 5.

In essence, the groups represent a gradient of social behavior from introverted tendencies to extroverted tendencies. Because of the significance of the differences in

⁸ The scores in each group for these variables are provided in Chapter 5.

scores between the groups, the minimalist, pragmatist, and maximalist typology is applied throughout the analysis and correlation tables show statistical relationships both for the overall sample and within the distinct typological categories. Details on the characteristics of the typological groups are provided in Chapter 5 along with a summary of the independent and dependent variable scores. Correlations, hypothesis tests, and summaries of the statistical analyses are provided in the chapters that follow as appropriate. Specifically, Chapter 6 addresses hypothesis H1 while Chapter 7 evaluates hypotheses H2 through H7.

Final Remarks on the Fieldwork and Data Analysis

No study of this kind is ever without methodological concerns. The major issues here relate to the logistical problems associated with conducting research in Tanzania's less-developed (materially and in terms of infrastructure) context and to the consistency in which responses were obtained from the businesspeople surveyed. Transportation problems limited accessibility outside Mwanza municipality and reduced the scope of the study to urban enterprises only. Consistency in the recording of responses was hampered to some degree in the translation from Kiswahili to English and in those cases when it was impossible to record responses in real time. Despite these constraints, the major objectives of the fieldwork were accomplished.

In sum, the data retrieved are rich in detail, deep in content, and most useful for an empirical analysis of business networks and trust among manufacturers in Mwanza. The methodology was not as rigorous as hoped but the findings developed through this research provide a solid portrait of business networks, inter-firm relations, and the social mechanisms driving entrepreneurship. Moreover, the findings are an accurate depiction

of the manufacturing sector in Mwanza and offer insight into some of the critical limitations on its expansion and improvement. The presentation of these findings begins in Chapter 5 following a description of the historical and geographic context of Tanzania and Mwanza.

CHAPTER 4 THE TANZANIA CONTEXT

Introduction

Tanzania's colonial and post-independence history are unique in the context of East Africa. Despite its post-colonial stability, Tanzania is the least developed of its East African neighbors (Uganda and Kenya) and is notorious for its lack of infrastructure and weak economy. Manufacturing and other value-added industries are poorly developed and mainly concentrated in the capital city of Dar es Salaam. The reasons for this are complex and can be linked to Germany and England's relatively weak colonial presence, to the independent Tanzanian government's experiment in socialism, and, more recently, to the on-going structural adjustment process in the country's economy.

This chapter reviews Tanzania's geography and history, assesses its current economic and political situation, and examines the current state of manufacturing throughout the country. This general review and assessment is important in that it provides a description of the national context in which entrepreneurs and manufacturers produce, compete, and innovate.¹ The chapter begins with a brief geographical description of Tanzania followed by a short historiography of the country's development since the late 1800s. The current economy, political system, and social conditions are then described with a focus on the manufacturing sector. The discussion on

¹ Details about Mwanza and the firms sampled are provided in Chapter 5.

manufacturing includes both an assessment of formal and informal firms and highlights the subsistence nature of most Tanzanian manufacturing enterprises.

The Physical Geography of Tanzania

The United Republic of Tanzania is located on the eastern shore of the African continent, covers an area of approximately 945,000 square kilometers, and includes the semiautonomous islands of Zanzibar and Pemba (Middleton 1997) (see Figure 4-1). The country is about twice the size of the state of California and is located roughly between 1°S 30°E, 1°S 40°E, 11°S 30°E, and 11°S 40°E. The climate is characterized by dry, tropical conditions inland and more humid regions located in the island and coastal areas on the Indian Ocean. Most of the country experiences two rainy seasons, one short and one long, with rainfall quantities varying widely from region to region.

Physically, Tanzania is characterized by a low-lying coastal plain with the remainder of the country situated on a large plateau. Near the center of the country, this plateau encounters the eastern portion of the Rift Valley forming an area with striking geologic formations and some volcanic activity. Tanzania has some of the oldest geologic formations on the planet and spectacular physical features including: Mount Kilimanjaro, Ngorongoro Crater, the Aberdares and Usambara mountain ranges, Olduvai Gorge, and Lengui volcano. Moreover, the country is partial home to three of Africa's largest lakes – Victoria, Tanganyika, and Malawi (Nyasa) – and to some of the most extensive biological resources on the planet. Tanzania boasts many national parks and game reserves covering diverse habitats such as the Serengeti (on the dry savanna in Northern Tanzania), the Selous (on the Rufiji river floodplain in central Tanzania), and Gombe Stream (a rainforest reserve on the shore of Lake Tanganyika).

Mainland Tanzania in History

The Colonial Period (1884 to 1961)

At the Berlin Conference of 1884, the Tanzania mainland was allocated to Germany and then administered as German East Africa. The German period was brief, lasting only until 1919, but ruthless in nature and catastrophic in its implications for many peasant production systems (Hyden 1980, Bierman 2000). By 1919, when Germany was forced by the League of Nations to hand the Tanganyika territory over to the British as a protectorate, there was little modern economic development to speak of, less the introduction of a few cash crops (mainly coffee, cotton, and sisal) and the construction of some infrastructure in towns such as Dar es Salaam, Lushoto, and Tabora (Hyden 1980, Bierman 2000). Because the League of Nations mandate put British sovereignty in Tanganyika into question, investment by the British was discouraged and thus little development capital was earmarked to Tanzania by the London government early on (Hyden 1980, Mueller 1980).

Up until World War II, the British invested relatively little in the Territory's economy except in those areas where raw materials were being produced and exported. Many Tanganyikan peasants were effectively capitalized for commodity extraction and sisal, in particular, became an important export product (Bierman 2000). During World War II, Tanganyika began to play a more important role for the British as they faced numerous raw material shortages. During this period, economic opportunities in the colony became more evident to the British authorities and, after the war, investment in the Territory increased. The primary focus of these investments was on increasing exports of sisal, groundnuts, coffee, cotton, and other raw materials. In the Mwanza

region, these interests were manifest in a large-scale groundnut-growing scheme and in the Sukumaland Development Scheme of 1947. The Sukumaland Development Scheme hoped to rapidly accelerate the pace of cotton production from the Lake Victoria basin. In Tanzania as a whole, such investments led to an increase in the colony's export production and the post-war economy grew rapidly.

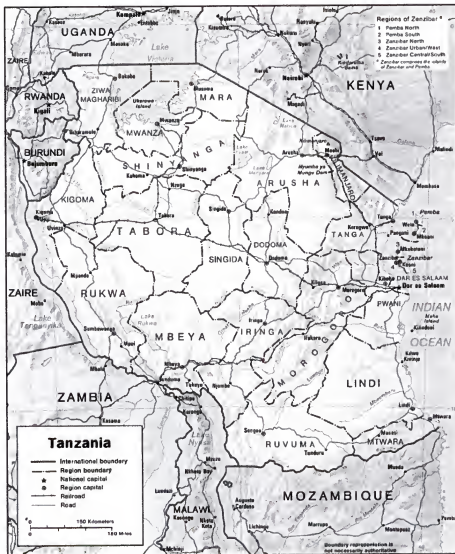


Figure 4-1: The United Republic of Tanzania

Map Source: United States Central Intelligence Agency (1989). Accessed at the University of Texas web site on July 12, 2001. http://www.lib.utexas.edu/Libs/PCL/Map_collection/africa/tanzania.gif

As part of this approach to export-led development in Tanganyika, the British also encouraged the formation of cooperative groups amongst peasants. These groups were centered around key commodities – tea, coffee, cotton, maize, and sisal – and it was hoped that such collectives would help integrate peasants into the global economy (Hyden 1980). These cooperatives, while largely successful in increasing peasant cash-crop production, quickly became hotbeds of resistance to colonial authorities. Ultimately, and ironically, crop cooperatives facilitated the development of an organized movement for independence and contributed significantly to the downfall of British rule in Tanganyika. Political resistance was most evident in areas where middlemen (often Asians) purchased crops from cooperatives and in cases where the finished consumer product produced from the commodity grown by the cooperatives (e.g., cotton to textiles) was largely unaffordable to the farmers growing it (Hyden 1980). By the late 1950s, cooperatives – particularly in the cotton-growing regions – had become quite powerful and were key supporters of the independence movement led by Julius Nyerere.

Independence came to the Tanzanian mainland in 1961 after a relatively peaceful resistance by Nyerere's Tanganyikan Africa National Union (TANU). The costs of colonialism were high, however, and for the most part Tanzania became independent with little of the capital and capacity necessary to compete in global markets. Mueller (1980) notes that the colonial authorities had effectively discouraged capitalism through their focus on smallholder production of cash crops (marketed through cooperatives) whose profits were easily extracted by British interests managing the countryside through indirect rule. Moreover, colonialism had effectively left peasants "trapped" between

traditional and modern relations of production and change in either direction offered little hope for improvement in the short term (Bierman 2000:14). In sum, there was essentially no industrial base, little wealth accumulation among the peasants, and few incentives for foreign investment as infrastructure was poor and markets and facilities in neighboring Kenya far better.

Early Independence (1961 to 1967) – Early Gains and the Arusha Declaration

In 1961, Julius Nyerere took over as prime minister of Tanganyika and was determined to achieve autarchy by unifying the diverse nation and achieving economic growth through import-substitution policies. Unification was fostered by Nyerere's nationalization of Kiswahili, his outlawing of traditional authorities, and by the government's efforts to deliver basic social services to most regions of the country. In 1965, Nyerere had achieved total power and a one-party system where TANU, later known as *Chama cha Mapinduzi* (CCM), established complete control through the ratification of a new constitution. The economy grew rapidly through the first half of the 1960s but by 1967 growth had stagnated and Nyerere's regime faced a crisis of political legitimacy as his restrictions on political freedom became more and more repressive (Middleton 1997).

The economic downturn of the mid-1960s was due in part to Tanzania's inability to attract foreign investment. Without this investment and the foreign exchange concomitant with it, import substitution became untenable as there was insufficient foreign exchange to purchase the intermediates and machinery necessary to add value to Tanzania's raw materials. Foreign investment was especially discouraged because of Tanzania's limited infrastructure and the low levels of technical capacity evident in its

labor pool. Other reasons were politically grounded. Specifically, Nyerere's increasingly socialist agenda, his vocal support of Marxist rebels in South Africa and Mozambique, and his recognition of East Germany alienated Tanzania from much of the capitalist world (Mueller 1980). The economic situation grew worse in 1966 when prices for Tanzania's primary export crop, sisal, plummeted. By 1967, the lack of investment and foreign exchange had taken their toll and the economy began faltering. Nyerere, seeing few alternatives, began looking inwards for ways of achieving economic stability.

The Arusha declaration of 1967 set the stage for the next fifteen years of Tanzania's development. The nation was to rely mainly on its own people and local resources to develop its industrial capacity. Under the policy of "Socialism and Self-Reliance", banks were nationalized, private accumulation restricted, agrarian populism promoted, parastatal partnerships established, social welfare programs expanded, and the production of food crops encouraged to ensure food security. Most significant, however, was the impact of Nyerere's philosophy of *Ujamaa*. Through this massive centralized program, the government of Tanzania sought to modernize peasant production systems within a socialist political agenda.

Ujamaa and Tanzania's Economic Fallout (1967 to 1985)

The program first known as *Ujamaa vijijini* began as a voluntary attempt to increase the productivity of the peasantry and to enable the Tanzanian government to more efficiently extract the surplus necessary to support import-substitution industrialization. The idea was to motivate the peasantry through a developmental approach to agricultural production centered on achieving economies of scale through high-modernist ideals of spatial organization (Scott 1998, Bierman 2000). Agrarian

populism and Nyerere's ideal of self-reliance were meant to drive a slow but steady process of reducing Tanzania's reliance on foreign capital (Mueller 1980). The thrust of the initial policy (1967 to 1973) was to provide credit and infrastructure as incentives for peasants to voluntarily participate in planned agricultural cooperatives. Spatially, cooperatives, as villages, were to be located such that the government could provide services cost-effectively and the peasants could transport crops to market efficiently.

Although *Ujamaa* had a few success stories early on, the Tanzanian peasantry did not flock to the villages in large numbers (Scott 1998). In 1973, as a means of increasing the pace of collectivization, Nyerere shifted the *Ujamaa* approach from voluntary to mandatory. Forced villagization was intended to be the "big push" to increase agricultural productivity, to integrate agriculture with manufacturing by parastatal factories, and to rationalize the disbursement of social services (Scott 1998). Instead, the program backfired as millions of farmers were displaced from their traditional lands and then became less productive in the cooperative setting. Moreover, the disincentives of villagization caused agricultural productivity to plummet, foreign exchange earnings from cash crops to decrease, and manufacturing parastatals to go bankrupt as they became less able to purchase intermediate inputs. Value-added manufacturing decreased drastically and the economy fell into a precarious situation by the end of the 1970s.

In addition to the catastrophic failure of *Ujamaa*, Tanzania's economy was suffering as a result of declining world prices for cash crops such as coffee, cotton, tea, tobacco, sisal, and cashew nuts. The mid-1970s energy crisis and the 1977 collapse of the East African Economic Community (EAC) had been particularly hard on Tanzania's economy and disastrous in light of *Ujamaa's* disruption to peasant production systems.

In 1978, foreign exchange reserves were used to liberalize imports (as the IMF and World Bank had recommended) and expenditures on imported products increased by 43% (Sarris & van der Brink 1993). As imports increased, export prices (particularly for coffee) fell rapidly and the country's balance of payments became excessively negative.

Nationalist interests further exacerbated this already unstable economic situation when the Tanzanian army invaded Uganda at the end of 1978. The need for war materials and weapons further depleted foreign exchange reserves and worsened the balance of payments crisis. By 1980, the Tanzanian army had defeated Amin's forces and captured Kampala. However, foreign exchange reserves were minimal and Tanzania's external accounts could not be balanced (Sarris & van der Brink 1993). By 1981, with the Tanzanian economy in collapse, Nyerere was compelled to abandon the *Ujamaa* policy and forced to look outward for substantial increases in fiscal and monetary assistance from multi-lateral and bilateral donors.

From 1981 to 1985, Tanzania's economic situation hit bottom and then improved slightly as Nyerere implemented a series of internally-driven adjustment programs. Land tenure was liberalized and the beginnings of a private land market developed. Food crop trade was liberalized and the National Milling Corporation (NMC) monopoly on grain prices weakened (Kiondo 1991). State expenditures were cut back, the Tanzanian shilling devalued, maize flour and fertilizer subsidies abolished temporarily, producer prices for crops increased, and the domestic market opened to the private selling and importation of consumer goods. The major goals of these changes were to reduce the demand for already limited state resources and to provide incentives to farmers to grow more food and cash crops.

The reforms were insufficient, however, and as Tanzanian's became more and more disillusioned with the difficult economic conditions, Nyerere began to lose support. Internally, he faced increasing pressure to acquiesce to the fiscal and monetary demands being made by the IMF and World Bank as many felt there was no alternative in the face of the economic realities. Nonetheless, Nyerere remained opposed to such foreign intervention and negotiations with the IMF and World Bank faltered as he refused to accept the demand for a drastic devaluation of the Tanzanian shilling. The economy continued to fail, however, and faced with an impossible economic situation and a disenchanted citizenry, Nyerere effectively resigned from the presidency in 1985 by deciding not to seek reelection. Ali Hassan Mwinyi, a Zanzibari and faithful member of the CCM, became the new president and quickly held secret negotiations with IMF representatives. By the end of 1985, it was clear that Tanzania would pursue an IMF- and World Bank-supported structural adjustment program and efforts were made to meet the IMF's short-term conditionalities. In August of 1986, an agreement was signed between the IMF and Tanzania.

Structural Adjustment and Liberalization (1986 to 1999)

Before the IMF would assist Tanzania in the first reform program, certain economic conditions had to be met. These entailed a large devaluation, reductions in almost all government expenditures, a decrease in the money supply, the elimination of a number of state-sponsored parastatals, increases in interest rates and export-crop producer prices, and the liberalization of internal and external trade (Sarris & van der Brink 1993). These conditions were fundamental to the IMF's program and at the core of

their philosophy about how to rescue desperate economies. Once these conditions were met, the mechanisms of reform were set into motion.

A major short-term goal of the IMF's reform was to increase agricultural production by raising producer prices and by providing incentives to producers in the form of more readily available consumer goods. Although this inherently meant an increase in imports in the short run, it was hoped that this would be balanced in the medium term by an increase in export-crop production. In the interim, tight credit controls would prevent the overextension of domestic banks and help keep the budget deficit down. Moreover, by opening up the economy it was felt that industry and farmers would be forced into more efficient production as a means of staying competitive (Campbell & Stein 1991). This, in turn, would have long-term implications for the viability and stability of the economy.

With the "shock therapy" of the IMF accepted, the World Bank made its Structural Adjustment Facility (SAF) available to Tanzania as it created an Economic Recovery Program (ERP) for the country. The Bank's reforms were meant to be complementary to the IMF's policies and focused on structural issues limiting the country's continued growth. Government was to be made more productive, incentives for the private sector encouraged, resources allocated more efficiently, and prices gotten right in the medium term (World Bank 1984, Bevan et al. 1987). Most importantly, small-holder farmers were to be brought into the market economy by opening up trade and providing incentives in the form of consumer goods (World Bank 1994). Export crops were crucial for achieving economic growth at pace with population as well for maintaining a healthy balance of payments. Additional World Bank programs were

directed at increasing efficiency in the crop marketing process, dismantling the price control system, decentralizing social services, “streamlining” the public sector, and making much needed improvements to the physical infrastructure (e.g. roads and energy supply) (Eriksson & Lundahl 1993).

By 1989, the impacts of the ERP were becoming apparent. The economy had grown significantly, imports increased, the shilling devalued considerably, and price controls were removed from most commodities. Food crop production had increased in part through market liberalization and the NMC’s stranglehold on food crop prices had been eliminated. Unfortunately, however, export crops did not fare as well. Although production had increased, unstable world prices for cotton and coffee meant that export growth fell far short of the ambitious targets set in 1986. Moreover, the export crop marketing boards remained dominant and producer prices did not rise as high as hoped (Eriksson & Lundahl 1993). These results, in combination with a dramatic decline in basic social services, forced the World Bank to reconsider its approach to adjustment in Tanzania.

The Economic and Social Action Program (ESAP) was initiated in 1989 to continue the pace of economic reforms while putting greater emphasis on the social dimensions of adjustment (Sarris & van der Brink 1993). Decentralization of social services continued but programs were added to build human capacity and improve the welfare system. The major economic component of the ESAP aimed to restructure the export crop marketing boards since the World Bank viewed these as major economic distortions and as obstacles to liberalization. Other investments, namely in roads and infrastructure, were earmarked and the shilling devaluation process was continued.

These early adjustment programs did, in part, succeed in increasing economic growth rates, opening up markets, improving producer prices and food distribution, and bringing in more consumer goods. The currency devaluation eliminated a major trade distortion and the rise in real interest rates helped improve savings and stabilize domestic banks. However, other developments during this period were less positive. The budget deficit decreased little despite significant cutbacks in spending on government services and extensive “streamlining” of the public sector. Foreign debt accumulated rapidly, inflation rates remained high, and prices continued to rise. Export growth was disappointing and the already negative balance of payments only worsened from 1986 to 1991 (World Bank 1993b). Moreover, the quality and quantity of social services in Tanzania declined as budgets for education, health, and welfare programs were cut. In 1991-92, a drought reduced exports and caused GDP growth to stall significantly. Overall, the economy had made improvements since 1985 but was still fragile and not truly stabilized.

Throughout the 1990s, the World Bank and IMF continued their support for structural adjustment and liberalization. In 1995, Benjamin Mkapa replaced Mwinyi as new president in the first multi-party presidential elections in Tanzania’s history. Mkapa’s tenure has been characterized by fiscal conservatism and more expansive and rapid economic liberalization. As the 1990s ended, most government-run parastatals had been sold off or liquidated, a new value-added sales tax (VAT) had been introduced, and foreign investment in Tanzania’s economy had increased from 0.2% of GDP in 1991 to 2.4% in 1999 (World Bank 2001a). In spite of liberalization, however, social services have continued to decline and the economy remains highly susceptible to external shocks

such as drought and falling world commodity prices. Without a more diverse and stable economic base, one more industrial in nature, the Tanzanian economy remains unable to reap widespread benefits from globalization.

Tanzania Today

Tanzania's population was estimated at 32.9 million in 1999 with a growth rate of approximately 2.5% (World Bank 2001b). Although the population growth rate decreased during the 1990s, the fertility rate remains high at 5.5 (in 1997) and the prevalence of contraception low (estimated at 18% in 1996) (World Bank 2001a). The country is ethnically diverse with nearly 120 groups, most of which speak languages from the Bantu family (Middleton 1997). The most sizeable groups are the Wasukuma (concentrated in the Mwanza region), the Wanyamwezi (related to the Sukuma and found throughout central to western Tanzania), the Wachagga (found mainly in the Kilimanjaro and Arusha regions), and the Wahaya (found in the most-western region along Lake Victoria). The country is divided evenly between Christianity, Islam, and traditional or animist religions (Middleton 1997). However, Islam is most prevalent in the coastal areas and on the islands of Zanzibar and Pemba.

Tanzania ranks poorly in regards to most economic indicators. Gross Domestic Product (GDP) was at \$7.5 billion in 1998 with Gross National Product (GNP) estimated at only \$8.1 billion for the same year (United Nations Industrial Development Organization (UNIDO) 2001, World Bank 2001b). The economy remains dominated by agriculture (41.2% of GDP in 1999) and manufacturing value-added contributed only 6.8% to GDP in 1999 (World Bank 2001a). Dominant exports are cash crops (e.g., tea, coffee, cotton, and sisal), fish, and minerals and there is generally little value added to

these commodities. Although foreign direct investment (FDI) levels increased significantly in the early 1990s (as Tanzania began its economic liberalization in earnest), FDI has flattened out at around 2.2% of GDP since 1999 (World Bank 2001b). Overall, the benefits of liberalization have been slow in improving Tanzania's economy and the increased availability of imported goods is the primary economic outcome of structural adjustment.

The majority of agriculture is practiced on a small scale and the economy and farmers depend on seasonal rains for production. Droughts occur frequently (most recently in 1992 and 1997) and when they do, the economy is generally devastated.² GDP per capita was only \$258.70 in 1999 despite an increase of about 43% since 1991 (World Bank 2001a). The growth rate for GDP per capita averaged 3.1% from 1991 to 1999, while inflation averaged 22.6% over the same period (World Bank 2001a). Thus, although the economy has improved somewhat during the past decade, Tanzanians continue to struggle to make ends meet in the face of such rapid inflation.

Socially, infant mortality rates are high (85 per 1000 in 1997) and life expectancy low at 47.9 years in 1997 (World Bank 2001a). HIV-AIDS (9.4 per 1000 in 1997) and malaria are at epidemic levels and numerous health and nutrition indicators worsened between 1992 and 1996, including: underweight prevalence, wasting prevalence, acute respiratory infection incidence, and stunting prevalence (World Bank 2001a). In terms of education, illiteracy rates are high, particularly for women (43%), and primary education

² In 1997 and 1998, weather conditions were a major problem throughout Tanzania as El Niño influenced weather patterns by first bringing drought (1997) and then excessive rains (1998). The result was a disruption in power supplies (hydroelectric), the destruction of roads and other forms of infrastructure, and a general and widespread economic downturn due to losses in the production and distribution of exports. The Mwanza region was hit particularly hard and, at one point, was effectively cut off from land transportation.

enrollments decreased from 1991 to 1996 (from 69.9% to 66.1%) in the face of civil service reforms and structural adjustment-induced cutbacks (World Bank 1999, World Bank 2001a).

Politically, Tanzania has been a multi-party democracy since 1995 but continues to maintain a strong central and regional system of governance. The most recent election occurred in 2000 and the ruling party (CCM) maintained power as it has since mainland Tanzania's independence in 1961.³ There are several (albeit largely ineffective) opposition parties, a relatively free press (nine national newspapers), and a general lack of ethnic divisiveness throughout the country. However, there has been recent tension between Muslim and Christian groups, particularly in the coastal and island areas, and some view Tanzania's political situation as one that is increasingly deteriorating into ethnic rivalries and civil unrest driven by religious divisions (Kaiser 1996). Moreover, Zanzibar has been particularly unstable recently as evidenced by the extensive clashes between Arab Muslims and African Muslims on the main island and the island of Pemba.

Tanzania is administered through a central government in Dar es Salaam, currently led by President Benjamin Mkapa. The president appoints a prime minister who works with the president to appoint cabinet members and ministers for the executive branch. There is a single-house legislative (parliament) numbering nearly 300 representatives from the mainland and islands. Below the central level, there are 25 regional governments with numerous district-level councils, a few municipal governments in regional capitals (e.g., Arusha, Musoma, Mwanza), and local committees

³ The original ruling party was called the Tanganyika Africa National Union (TANU) and was led by Nyerere. In 1977, Nyerere's party formed a coalition with Zanzibar's Afro-Shirazi Party (ASP) to become *Chama cha Mapinduzi* (CCM) – translated as the Party of the Revolution. CCM has ruled continuously since 1977.

responsible for smaller towns and villages. Despite the potential for checks and balances, the president and the CCM party are the key influences on policy-making (Middleton 1997). Because of this, Tanzania's political atmosphere tends to shift with new presidents – from Nyerere's ideological strength to Mwinyi's benevolence but lack of fiscal control to Mkapa's fiscal conservativeness – and participation from the regions and districts is limited by the national party's influence. Besides the president, the police and army are also powerful. The national police, in particular, are highly visible throughout Tanzania and have a reputation for corruption and harassment. Corruption in the government is, in general, epidemic at all levels and, although it is often cited as a major obstacle to development in Tanzania, has not been seriously addressed despite the imposition of numerous foreign-aid conditionalities.

Tanzania remains dependent on large amounts of foreign aid for fiscal stability and development programs. For this reason, debt is a huge problem and one that will remain for many years to come. External debt was estimated at \$7.1 billion at the end of 1996 in a country facing an estimated current account deficit of about \$1.1 billion per year (World Bank 1998b). Despite debt-relief programs and extensive support from the donor community, the Tanzanian government faces the enormous task of reducing the level of this debt while stabilizing fiscal accounts, investing in long-term development programs and infrastructure projects, increasing exports, and improving food security. Achievement of these multi-dimensional objectives will not be possible without a major increase in Tanzania's level of industrialization and manufacturing value-added. A brief review of the status of manufacturing in Tanzania is helpful for understanding the enormity of this task.

Manufacturing in Tanzania

The Manufacturing Sector since Independence

Mueller (1980) argues that little industry developed in Tanganyika during the colonial period in large part because of the British government's lack of commitment to the expatriate settlers in the colony. Throughout the colonial period, particularly before World War II, manufacturing was what Bierman (2000:54) describes as a "cluster of marginal activities." Kenya, especially Nairobi, was the industrial center of East Africa and Tanzania was relegated to being a dumping ground for Kenyan goods. At independence in 1961, manufacturing was only 3% of Tanzania's GDP compared with 10% in Kenya. The status of industry in Tanzania at independence is aptly described by Bierman (2000:112) as follows:

The conservation of Tanganyika's role as material exporter resulted in the absence of domestic processing industries (cotton to textiles; sisal to twine and bag production) and the localization of niche industries whose foundation was owed rather to comparative advantages ... than to the requirements of development by industrialization. In short, the industrial sector appeared as one luxurious appendage.

At independence, Nyerere's government took a pragmatic approach to industrialization and focused initially on maintaining access to foreign exchange flows by offering incentives to foreign investors in the manufacturing sector (Mueller 1980). The hope was to secure capital and know-how and to achieve import-substitution industrialization. Moreover, industrial development was viewed as useful in that it would support the progressive modernization of Tanzania's agricultural sector. Unfortunately, Tanzania was in a weak position due to its poor infrastructure *vis-à-vis* Kenya and Nyerere's controversial stances on cold war issues (Mueller 1980). After 1967, Nyerere

took a socialist approach to industrial development. Industries were nationalized, foreign capital denounced, and African ownership of firms mandated. By the early 1970s, the Tanzanian state had effectively taken over the affairs of the industrial sector.

Throughout the 1970s, the number of government-sponsored parastatals in manufacturing increased dramatically. It was hoped that these firms could be efficiently linked to large-scale collectives and that they would enable Tanzania to become self-sufficient in manufactured goods. Although there were initial successes, the approach faltered as most parastatals were inefficiently operated and plagued by mismanagement, nepotism, and continuous external shocks (e.g., drought and the oil crisis). By the end of the 1970s, most parastatals were financially overextended and dependent on the government to remain in operation (Bierman 2000). By the time the economy bottomed out in 1982, utilization capacity in the manufacturing sector was less than 40% (Bierman 2000). From 1976 to 1986, manufacturing output had decreased on average 3.6% per year while its percentage of GDP declined from 13% in 1976 to 7.9% in 1986 (Grenier et al. 1999). It was only during the late 1980s that signs of recovery became evident.

With the onset of structural adjustment in 1985, the manufacturing sector began to improve and grew at an average rate of 3.7% per annum between 1986 and 1994. However, manufacturing was still only 7.6 % of GDP in 1994, less than the 1986 level (Grenier et al. 1999). Since 1994, the manufacturing sector has grown 4.1% per annum in real terms although its share of GDP has decreased to approximately 6.8% (World Bank 2001a). Large firms have expanded more rapidly and have higher levels of value-added in relation to output than small and medium-scale firms. Despite these

improvements, productivity levels in Tanzania's manufacturing sector pale in comparison with countries such as Mauritius (Harding & Teal 1999).

Food-processing industries have performed best in recent years while firms in wood, textile, and metal industries fared poorly during the 1990s. In general, manufacturers are severely hampered by low productivity, low capacity levels, and relatively high wages in the sector despite its relatively high degree of labor intensity (Harding & Teal 1999). Few firms are capable of exporting and many struggle to compete with imported goods (Grenier et al. 1999). Moreover, there is little capital available from the formal banking sector and most firms rely on profits for new investment and expansion (Grenier et al. 1998). The lack of financial capital has depressed the sector's development and has been particularly hard on smaller-scale manufacturers having little capital to begin with.

Foreign interest in Tanzania's manufacturing sector has risen significantly in recent years and relates positively to increases in manufacturing exports (Grenier et al. 1998). Foreign investors and transnational corporations have also captured large segments of Tanzania's domestic market for consumer goods and durables. Much of this foreign interest has come from within the East African region, Kenya in particular, as well as from Southern Asia and the Middle East. The sustainability of manufacturing FDI in Tanzania is uncertain, however, as is indicated by its flattening out since the early 1990s (World Bank 2001a).

If industrialization and manufacturing are to be sustained for the long term, development policies in Tanzania must nurture the formation of a domestic manufacturing class. At the present time, domestic manufacturers are struggling to

compete in markets flooded with imports and in the face of high rates of inflation that increase input costs. Exporting is a distant dream for most manufacturers who manage firms hampered by low capacity, limited capital, and poor access to foreign markets. Medium-scale firms have been particularly hard hit and there appears to be a “glass ceiling” limiting the transition from small-scale to large-scale levels of production. Harding and Teal (1999) posit that this circumstance may be related to the fact that medium-scale firms face the need to increase their fixed costs of production without guarantees of immediate benefits such as are associated with increasing scale economies. Obstacles such as these, while significant for medium-scale operations, may be even more difficult for small-scale and informal sector enterprises to overcome. To understand why this is the case, it is useful to briefly describe the context in which microenterprises and informal sector manufacturers produce and compete.

Small-Scale and Informal Manufacturers in Tanzania

Informal economies and firms are inconsistently identified and the term “informal” is conceptually problematic.⁴ In this study, the term is used to refer to firms that are small in scale and unregistered for taxation purposes. Although many small firms have petty licenses to operate within municipal boundaries, few are formally required to report their earnings to the government. Because of this, some licensed firms may be considered here as “informal” firms as well.

Informal sector firms are often disliked by municipal authorities and their activities are denounced by many officials as being illicit, dirty, or illegitimate. The

⁴ Mead and Morrison (1996) aptly demonstrate this ambiguity and argue that it prevents cross-study synthesis of ideas related to the “informal” economy.

“crimes” sometimes committed by these businesspeople typically relate to squatting on public land, being unlicensed, or being in violation of municipal zoning or health codes. Many informal firms operate at the fringes of the law but contribute significantly to the goods and services available in Tanzanian markets. Products and services provided by informally owned and operated firms include metalworking, craft production, tailoring, food services, auto repair, domestic help, general hawking and vending, furniture making and carpentry, and shoe repair.

Until the early 1980s, small-scale enterprise and self-employment were limited in Tanzania as the state tried to monopolize all economic activities. As the economy collapsed in the early 1980s, goods, including many basic needs, rapidly became unavailable in local markets and a parallel economy developed in the face of rationing (Maliyamkono & Bagachwa 1990). It was through this parallel economy that informal enterprise “formally” established itself in Tanzania’s post-independence economy.

From 1980 onwards, many Tanzanians began relying on these parallel channels for food and basic supplies. Initially, the government fought against these firms as Nyerere despised the “loiterers” squatting about in Dar es Salaam (Tripp 1996). In 1983, the policy of *Nguvu Kazi* (strong or honest work) was implemented in an attempt to clear the cities of informal enterprises. Although over 15,000 people were detained in three months, the policy was an utter failure as traders, craftspeople, and entrepreneurs kept coming back despite being chased away or arrested time and again (Tripp 1996). Eventually, the state was forced to back down knowing it could not provide food and materials as efficiently as the “second” economy. Nonetheless, the government did not formally recognize the importance of small businesses until the late 1980s.

Small-scale manufacturing enterprises fill market niches not occupied by conventional industry and profit by working outside the formal regulatory framework (Fafchamps 1994). With the legalization of small enterprise and Tanzania's implementation of structural adjustment policies, the growth rate of the informal sector has been impressive. Not surprisingly, this growth has coincided with the demise of parastatals and the liberalization of food and raw material markets within Tanzania. Moreover, factors such as falling real wages for formal sector employees (forcing them to look elsewhere for extra income), increasing rural-urban migration, and the unfavorable regulatory environment facing formal sector firms have accelerated the creation of informal enterprises (International Labor Organization (ILO) 1993).

Small-scale and informal enterprises in Tanzania are often family owned, financed from personal savings, and managed with little formal structure or management plan. Business owners typically utilize an apprenticeship system to train labor and these firms provide an extremely important source of employment throughout the region (Fafchamps 1994, ILO 1993). Informal enterprises are typically started for reasons of income security, profit making, as family enterprises, to continue traditions, and as a means of acquiring prestige.

Small-scale manufacturers in the informal sector face numerous limitations on their abilities to expand into larger-scale production systems. Although many of the entrepreneurs managing them are venturesome and innovative, their firms are often limited by a lack of managerial competence necessary to be productive on a larger scale (Lall 1992b, Fafchamps 1994). Moreover, these enterprises are often at the whim of available transport, forced to deal directly with erratic weather conditions, operating on

the margin of economic viability, and, in some areas, continually facing harassment from police and local officials (Chuta & Liedholm 1990, Fafchamps 1994).

State repression of small-scale and informal enterprises continues today, particularly in rapidly growing urban areas such as Dar es Salaam, Arusha, and Mwanza. Tripp (1996, 1997) has documented this legacy in Dar es Salaam and witnessed the popular sympathy surrounding unofficial enterprises. This popular support eventually forced the state to lessen its licensing requirements. These gains were achieved largely through the spontaneous acts of resistance against local authorities made by manufacturers and vendors working collectively to notify each other about imminent police raids (Tripp 1997). In Mwanza, similarly repressive acts and responses were observed, particularly during a two-week purge of unlicensed activities that occurred throughout the city in February, 2000. The adversarial relationship between the state and small-scale enterprise bodes poorly for Tanzania's long-term economic development as it limits the willingness of businesspeople to participate more widely in civil society.

Summary

This chapter described the national context in which Tanzanian manufacturers operate. An historical description and contemporary portrait of Tanzania were provided as a backdrop for the analysis that follows. The history and political economy of Tanzania reflect its developmentally weak, yet dominant, colonial presence and an independence period marked by an inward-oriented ideological path. These factors contributed to the economic fallout of the early 1980s and to the development of a weak manufacturing sector marred by low productivity and low levels of managerial capacity. With the onset of structural adjustment and economic liberalization, the sector has

improved although it remains far behind neighboring Kenya. On the whole, liberalization has not led to rapid industrial growth and instead, many consumer and durable good markets (e.g., clothing, processed food, basic appliances) have become flooded with cheap imports from Asia and other African countries.

Beyond political, historical, and economic factors, there are social dimensions to consider when evaluating the obstacles to industrialization in Tanzania. Specifically, there is a need to better understand the role that social relations play in the development of the country's manufacturing sector. Social relations are important in that they help embed industry in society through the creation of norms, rules, customs, identities, routines, conventions, and roles. By creating these social structures, entrepreneurs and businesspeople may improve the efficiency of their operations and increase their access to information and knowledge. Without more innovative social institutions, and the efficiency improvements often concomitant with their creation, manufacturing firms in Tanzania will remain unable to effectively compete in both local and foreign markets. The chapters that follow examine such social dimensions through an empirical assessment of business networks and relations among manufacturers in the city of Mwanza.

CHAPTER 5 THE MWANZA CONTEXT AND STUDY SAMPLE

Introduction

This study focuses on manufacturing firms in the Tanzanian city of Mwanza. Mwanza was selected for its size, its isolation from Dar es Salaam, and its importance as a hub for trade in the Lake Victoria basin. The Mwanza region has struggled to industrialize despite the fact that it is Tanzania's most densely populated region (outside the Coast region where Dar es Salaam is located) and one relatively well-endowed with natural resources. Because of this, Mwanza offers a useful vantage point from which to examine the dynamics of Tanzania's manufacturing sector. On a more general level, industrialization in secondary cities such as Mwanza is vital in that it will enable a more widespread distribution of the economic benefits of liberalization, lead to the creation of growth poles and centers for agglomeration economies outside of primate cities, and facilitate the development of regional trade links in Sub-Saharan Africa.

At the present time, however, manufacturers in Mwanza are struggling to create competitive advantages in the face of rapid economic change. Economic activity remains concentrated in trade-based activities and the primary sector and there are few export-oriented manufacturing firms. Nonetheless, there is a vibrant small-scale manufacturing sector and firms and entrepreneurs are beginning to develop larger-scale enterprises potentially able to compete outside the Lake Victoria region. The limitations on these

firms are numerous and include poor infrastructure, lack of financing, and a municipal government generally at odds with the private sector.

This chapter describes the Mwanza context and examines the composition of the firms sampled during the fieldwork. In doing so, a diversity of individuals and enterprises emerges reflecting not only varying experiences and attitudes, but also extreme disparities in levels of capital and infrastructure among manufacturers in Tanzania. Material differences, however, do not readily equate to extremes in the use of social relations or business networks. Instead, each of the typological categories – minimalists, pragmatists, and maximalists – has a diversity of individuals and firm types. There are general trends in some areas (e.g., level of training, firm structure, and education level) but exceptions abound. The most important lesson taken from the descriptive data is that it is dangerous to make assumptions about entrepreneurial capacity based solely on factors such as education level, wealth, ethnicity, religion, or age. Moreover, technical factors such as extent of formal job training, firm structure, initial source of financing, number of employees, and years in business, although useful in evaluating performance, may be poor indicators of a business owner's innovativeness. In sum, descriptive variables and general characteristics should be approached with caution as they can be of limited use when trying to evaluate the long-term potential for a firm or industry.

The chapter begins with a presentation of the current political, material, economic, social, and cultural conditions in Mwanza city. The main objective of the discussion is to provide a portrait of the issues and forces structuring daily life in the city and to highlight the major constraints faced by businesses there. Mwanza's industrial

sector is then detailed and recent studies on economic activities in the city are reviewed, particularly those that relate most directly to this research. The sample is then described both as a whole and in terms of the social typology introduced in Chapter 3. Firms are described in terms of their technical characteristics (e.g., number of employees, infrastructure) and on the basis of the experiences, background, and education of the individuals managing them. By combining the specifics of manufacturing firms with a detailed description of the Mwanza context, one is able to better visualize the environment in which firms develop social relations and networks. The chapter closes with a brief discussion of why this sample is thought to be representative, why these businesspeople are important to study, and how the analysis proceeds in the chapters that follow.

The Mwanza Context

Mwanza offers a rich environment for studying the social dynamics of innovation and entrepreneurship. The city is located on the shores of Lake Victoria and is nestled strikingly amidst a group of rocky hills (see Figures 4-1 and 5-1). Mwanza is Tanzania's second largest city, a vibrant trading center, and one of East Africa's most rapidly growing urban areas. Recent population estimates for the city were at about 500,000 in 1999; up significantly from an estimate of 420,000 in 1997 (Mwanza Municipal Council 1999). This increase corresponds to a 20% rise in two years and demonstrates the explosive rate of urbanization confronting the city's planners and policymakers. Since economic liberalization and structural adjustment began in the 1980s, outside investment has increased significantly in Mwanza, particularly in the fishing and gold mining industries. With these new opportunities have come thousands of rural Tanzanians

looking for work or attempting to start businesses independently in the city. Despite the economic boom, there are relatively few formal sector job opportunities and the city's economy is dominated by informal business activities. Small firms and cooperative work groups are prevalent and particularly visible in metal-craft, furniture-making, and grain-processing industries.

Mwanza's economic base is in natural resource extraction and primary sector agricultural activities. Fishing, minerals, and cotton are the most significant export industries with fishing currently the strongest contributor to the local economy. There are approximately eight fish exporters in Mwanza and frozen fish is air-shipped to markets abroad regularly. Cotton has struggled since markets were liberalized but it remains an important source of income for rural farmers in the region. There are two major ginneries in and around Mwanza city producing a range of cotton-based products from lint for export to cotton-seed oil for local sale. The mining industry is a relative newcomer but it has grown rapidly since 1995. As of April 2000, there were at least fifteen foreign companies conducting exploration or mining operations in the Mwanza region. Most of these operations involve gold although there are a few diamond and precious stone mines.

The environmental implications of these primary industries are significant. Lake Victoria's sensitive ecosystems have been devastated by exotic species introductions (e.g., the Nile perch (*lates niloticus*) and the water hyacinth (*eichornia crassipes*)), increasing levels of human-induced pollution (e.g., sewage, pesticide run-off), sediment run-off from surrounding agricultural areas, and rapidly declining levels of biodiversity, particularly among the cichlid fish populations (Food and Agricultural Organization (FAO) 1992, Kaufman 1992). The minerals industry is increasing the strain on local

resources and mining operations are rapidly being developed in rural areas adjacent to the lakeshore. Effective environmental protection and healthcare institutions are sorely lacking in Tanzania and there are growing concerns about the long-term ecological and social implications of intensive mining activities in the Lake Victoria basin (Marine Pollution Bulletin 2000, van Straaten 2000). The need for non-extractive industries is clear if the basin's ecosystems are to be sustained for the long term.

Mwanza has poor infrastructure and is desperately lacking in many services. Repeated attempts at road rehabilitation have failed due to mismanagement, insufficient funds, and corruption and this has had a significant effect on Mwanza's overland accessibility, particularly during the rainy season. Electricity is available throughout the city but there are frequent power interruptions and periods of low-voltage or brownout conditions.¹ Although Mwanza is situated on the shores of the world's second largest freshwater lake, the city experiences major problems with its water supply system. Many areas of the city face a continuous shortage of water and its quality is highly variable. Social services, such as hospitals and schools, have also struggled to keep pace with population growth.

Despite Mwanza's population growth and size, the city retains many of the attributes found in smaller trading centers in East Africa. There is a bustling quality to business and transactions are visible everywhere around town. Firms range in size from very small and exposed *jua kali* or *fundi* types to large-scale factories isolated from the outside by large walls and watchmen. There is one main market in the center of the city and ten other daily markets throughout the municipal boundaries. There are also weekly

¹ Inconsistencies in the electricity supply are particularly maddening to owners of machine and metal shops who rely on three-phase power for much of their welding, forging, and shaping work.

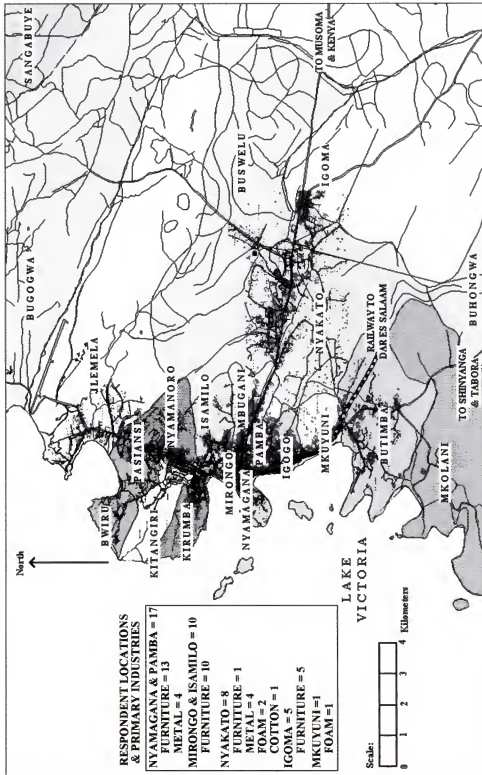


Figure 5-1: Mwanza City with Wards and Respondent Locations

markets on Friday, Saturday, and Sunday and these are well attended by small-scale manufacturers of furniture, charcoal stoves, and metal items.

Ethnically, Mwanza is a diverse mix of resident Africans, Asians, and a small number of expatriates of European descent. Among the African businesspeople, a variety of ethnic groups are represented with the Sukuma being most prevalent. Other groups of significance include the Luo, Jita, Kuria, Nyamwezi, Ha, Haya, Chagga, Ukerewe, and Zanaki. Despite their large populations, the Sukuma do not dominate the manufacturing sector and instead concentrate on trade and agriculture-based activities. Asian businessmen are active in a variety of areas and operate travel agencies, computer shops, food processing and fish factories, metal working shops, retail and wholesale trading stores, restaurants, and hotels. The Asian community is diverse with the majority of businessmen being Gujarati Indians, many of whom were born and raised in Tanzania. Sikhs, Ismaili, Goans, and other Muslim groups are also present and the Sikhs, in particular, are economically powerful. Lastly, there has been a significant increase in the number of expatriate residents from Europe, South Africa, and Australia. However, these groups remain insignificant in the manufacturing sector although their presence is notable in minerals and security services.

Asian and African manufacturers control different industrial sectors and typically utilize different levels of capital. In the furniture industry, African carpenters or *fundi* dominate the marketplace and most build furniture by hand in exposed work areas. Although most carpenters work independently or in small groups and cooperatives, there are a few larger-scale and more capital-intensive furniture makers around town. In the metal-working sector, Asian businessmen are most prevalent and successful on a large

scale. Machine shops remain largely Asian in ownership while Africans dominate those scrap-metal industries amenable to hand tooling (e.g., the manufacturing of kerosene lamps from aluminum cans or the manufacturer of metal charcoal stoves or jikos). The other industries explored in this study – foam, wire nails, cotton ginning, and steel rod manufacturing – are controlled mainly by Asian interests. These industries are capital-intensive, distributor-oriented, and rely on scale economies to ensure price competition.

Manufacturers in Mwanza have struggled to compete with imports since liberalization began. The major textile factory (MWATEX) in the city closed its doors in 1998 due to inefficiency, crumbling infrastructure, and a market flooded with second-hand clothes or *mitumba*. Furniture makers are commonplace throughout Mwanza and small-scale carpentry firms have successfully out-competed large-scale manufacturers on the basis of price. Metal-working firms are generally service-oriented and there is little of the capacity, interest, or technology necessary for large-scale production or export success. Manufacturing firms also exist in the foam and food oil sectors and control over these is maintained largely by outside interests or transnational corporations (TNCs). The foam mattress industry is competitive in local markets only and the food oil business has struggled to keep pace with imported products from Asia. In general, the manufacturing sector in Mwanza faces enormous obstacles due to capital constraints, low levels of technical capacity, and limited market demand.

Despite the poor performance, there is potential for manufacturing in Mwanza. The struggle is to find ways to increase the management capacity of firm owners, to attract capital to local enterprises, and to improve the municipality's infrastructure. These improvements require that the Tanzanian government work with industry – not

against it. As it stands now, there is little policy direction from the state and corruption is rampant among officials in tax agencies, custom bureaus, and municipal government. Moreover, municipal authorities frequently “purge” small businesses in Mwanza under the guise of stopping tax evasion. Small-scale traders, tailors, shoe shiners, carpenters, food sellers, and metal workers are primary targets of these assaults and these attacks do little to encourage relations between the government and business. Larger-scale enterprises face less-dramatic forms of repression from state authorities but there is little trust between these firms and the state. The poor relationship between Mwanza’s municipal government and business may limit the city’s development and its industrialization process.

Prior Studies of Economic Development in the Mwanza Region

The bulk of the literature describing and assessing economic conditions in the Mwanza region is concentrated in rural areas and relates largely to farming systems. These studies (e.g., Birley 1982, Little 1991, Meertens et al. 1995) provide insight into history, market activities, local ecosystems, and processes of technological change in farming systems but do not delve extensively into the dynamics of trade, entrepreneurship, or manufacturing. In recent years, however, a few authors have examined and detailed market activities in Mwanza’s urban center.² Specifically, there have been recent studies on food provisioning strategies (Flynn 1997), local commodity chains (Gibbon 1997a, 1997b, 1998), and entrepreneurial strategies (Trulsson 1997) in and around urban Mwanza. The works of Gibbon (1995, 1997a, 1997b, 1998) and

² One dissertation on the topic was located, Greble (1971), but found to be useful only in terms of its historical detail regarding Mwanza municipality.

Trulsson (1997) are of particular interest as both authors detail how businesses operate and entrepreneurs in East Africa innovate. Moreover, their descriptions and discussions provide a useful context in which this study's sample may be situated.

Gibbon assessed the mining, fishing, and cotton industries in the Mwanza region and provides rich detail regarding the nature, extent, and dynamics of commodity chains in Tanzania. His descriptions of the extraction, trade, and processing of these commodities offers valuable insight into the global-local connections of primary sector activities in the Mwanza region. Gibbon details the structure and dynamics of commodity extraction networks, their links to processing and manufacturing firms, and the connections between subsistence lifestyles in Mwanza and the global marketplace. In particular, we see the rapid infiltration of foreign interests into these low-wage sectors and observe the “coarseness” of unregulated industrial development.

Mwanza is accurately portrayed as a rapidly changing context where globalization is accelerating the development of industries dependent on low wages and few employee benefits. The social dimensions of these industries are intriguing as are the clear and diverse hierarchies separating those having access to capital and those dependent on capital owners for survival. The fishing industry is particularly revealing in its starkness and exploitation and Gibbon (1997a, 1998) deconstructs its firms and markets with great detail. In general, Gibbon's studies are valuable “snapshots” of industries in Mwanza that demonstrate the dynamics and consequences of rapid economic liberalization in an underdeveloped context.

Trulsson's (1997) study of entrepreneurship in northwestern Tanzania focuses on agency and entrepreneurship and is not concerned with a particular industry or

commodity. Most importantly, Trulsson addresses issues of strategy among entrepreneurs in the Lake Victoria basin. Although his sample size is small, the qualitative data are rich in their description of how entrepreneurs adjust to, adapt to, and exploit resource limitations, weak formal institutions, and limited capital and manage to succeed in a variety of enterprises (e.g., publishing, cotton processing, tanning, plastics, food processing, timber). Trulsson approaches entrepreneurship from a transaction-cost perspective on agency as he focuses on the means through which Tanzanian entrepreneurs succeed by reducing these costs. Most important of these are: resource integration, dependence avoidance, and reliance on relations of trust. Trulsson finds that networks are not crucial for entrepreneurship but dyads (one-to-one relations) are. These individual relationships may have a high degree of trust but are limited to only a few key individuals – namely family members and long-time business partners.

Trulsson's study provides valuable insight into the nature of business activities and entrepreneurship in Mwanza but his study is limited to the most successful and largest-scale firms in the region. Moreover, his definition and application of the term "entrepreneur", although supported through selected literature, is ultimately limited to the most prominent and visible businesspeople. Entrepreneurial events among the less prominent are ignored and entrepreneurship is essentially a characteristic associated with class distinction. This approach, although powerful in its focus on the most powerful and dynamic agents, inherently excludes the small-scale business owners and microenterprises that dominate economic activities in the Mwanza context. There is no discussion about the ways in which small firms innovate, how small business owners use

networks, and how these enterprises succeed despite their size and extreme capital limitations. This study adds to Trulsson's contribution by filling in some of these gaps.

Summary of the Findings and Introduction to the Typological Categories

A map of Mwanza municipality is provided in Figure 5-1 along with an identification of the municipal wards where the sample was enumerated. Table 5-1 summarizes the scores for the independent and dependent variables both for the overall sample and for the typological categories of minimalists, pragmatists, and maximalists. As was detailed in Chapter 3, the typological groups reflect significant differences in network dependence, use of macro-level trust strategies, and external connections. Statistically, levels of significance were computed using one-tailed t-tests comparing the differences in the means for each variable and each typological group. These differences represent variations in the degrees to which respondents are open to social relations and to the building of business networks. Beyond differences in social strategies, the categories demonstrate significant differences among the three groups in their scores for innovation, performance, meso-level trust, and micro-level trust.

Minimalists are the least outward-oriented of the firms sampled as is evidenced by their low network, external link, and macro-level trust scores. Beyond these variables, minimalists have significantly lower scores than the maximalists in all other categories except meso-level trust where they score significantly higher. In sum, the minimalists are least dependent on social relations, least innovative, and least successful of all the firms sampled.

Pragmatists represent the middle ground for network dependence, external connectedness, and willingness to utilize macro-level trust strategies. In relation to the

Table 5-1: Summary of the Scores for the Independent and Dependent Variables

Variable	Social Relations Type			
	Minimalists (n=13)	Pragmatists (n=12)	Maximalists (n=16)	Total Sample (n=41)
Mean Network Dependence Score	0.4381	0.5646	0.95026	0.68
<i>P (T<=t) one tail test</i>	0.0347 (Minimalist mean versus Pragmatist mean)	0.00007925 (Pragmatist mean versus Maximalist mean)	0.000007056 (Maximalists mean versus Minimalist mean)	n/a
Mean External Link Score	0.1593	0.4494	1.3839	0.72
<i>P (T<=t) one tail test</i>	0.0319	0.00032	0.000008265	n/a
Mean Macro-Level Trust Score	0.0769	0.8333	1.25	0.76
<i>P (T<=t) one tail test</i>	0.0093	0.0923	0.000001636	n/a
Mean Micro-Level Trust Score	0.9231	1.05	1.0729	1.02
<i>P (T<=t) one tail test</i>	0.056	0.3563	0.0176	n/a
Mean Meso-Level Trust Score	1.0096	1	0.7266	0.9
<i>P (T<=t) one tail test</i>	0.485	0.0863	0.08627	n/a
Mean Performance Score	-0.1154	0.2361	0.40625	0.19
<i>P (T<=t) one tail test</i>	0.1489	0.3153	0.033	n/a
Mean Total Number of Innovations	2.3077	4.1667	5.3125	4.02
<i>P (T<=t) one tail test</i>	0.00438	0.1972	0.0000432	n/a
Mean Number of Responsive Innovations	1	1.3333	1.8125	1.41
<i>P (T<=t) one tail test</i>	0.2051	0.16375	0.02699	n/a
Mean Number of Creative Innovations	1.308	2.833	3.5	2.61
<i>P (T<=t) one tail test</i>	0.00502	0.1972	0.00108	n/a

Shaded boxes represent differences in means significant to 0.10

maximalists, pragmatists are also significantly different in their increased use of meso-level trust strategies. As for the minimalists, pragmatists have significantly more creative and total innovations and a significantly greater use of micro-level trust mechanisms. In terms of performance and responsive innovation, however, pragmatist scores were not significantly different than maximalists' or minimalists'.

Maximalists are significantly more networked, externally connected, and reliant on macro-level trust strategies than the minimalists and pragmatists. Maximalists are also most innovative and best performing of the firms sampled. They are significantly more innovative than minimalists in all categories of innovation but do not achieve significantly different innovation scores than the pragmatists. Performance scores reflect a similar trend as maximalists significantly outdo minimalists but once again are not significantly better performing than the pragmatists. In terms of trust, maximalists rely on macro-level and micro-level trust strategies the most and are the least dependent on meso-level trust mechanisms. Meso-level trust scores among maximalists are significantly lower than both the minimalists and pragmatists while micro-level trust scores are only significantly higher in relation to the minimalist group.

Descriptive Characteristics of the Sample

Table 5-2 summarizes the demographic and firm-related characteristics of the overall sample and for the minimalist, pragmatist, and maximalist groups. The discussion that follows focuses on the data in Table 5-2 and assesses the demographic, social, cultural, and technical characteristics of the businesspeople and firms studied. Each of the characteristics summarized in Table 5-2 is reviewed and any visible trends

Table 5-2: Summary of the Descriptive Characteristics of the Sample

	Minimalists (n=13)	Pragmatists (n=12)	Maximalists (n=16)	Total Sample (n=41)
Industry	Wood/furniture (11); metalworking (2)	Wood/furniture (8); foam production (2); metalworking (2)	Wood/furniture (10); metal working (4); foam production, cotton processing	Wood/furniture (29); metal working (8); foam production (3); cotton processing
Type of Firm	Cooperative (9); independent (4)	Independent (5); cooperative (4); corporate/sponsored (3)	Independent (10); cooperative (2); corporate/sponsored (4)	Independent (19); cooperative (15); corporate/sponsored (7)
Average Age of Respondent (median age)	36.3 (32)	32.6 (33.5)	39.9 (36)	36.5 (35)
Ethnicity¹ (count equals one if no number)	Mjita (3); Sukuma (3), Luo (2), Nyamwezi (2), Pakistani, Zarangeta, Chagga, Kuria, Ha	Indian-Gujarati (3); Haya (3); Jita (2); Pakistani; Nyamwezi; Singida; Chagga; other mixture	Indian-Gujarati (3); Haya (3); Indian-Sikh (2); Chagga (2); Sukuma (2); Ha (2); Ngoni; Manyema; Makonde; Nyiramba, Mkara (Ukerewe)	Indian-Gujarati (6); Haya (6); Sukuma (5); Jita (5); Ha (3); Chagga (4); Nyamwezi (3); Indian-Sikh (2); Pakistani (2); Kuria; Singida; Zarangeta; Ngoni; Manyema; Makonde; Nyiramba
Home Region¹ (count equals one if no number)	Mwanza (5), Mara (4), Kilimanjaro (2), Arusha, Tabora	Mwanza (3); Mara (3); Kagera (2); Morogoro; Singida; Kilimanjaro; Pakistan; India	Mwanza (5); Kagera (3); India (3); Kilimanjaro (2); Kigoma (2); Songea; Mara; Singida; Mtwara	Mwanza (13); Mara (8); Kagera (5); Kilimanjaro (5); India (4); Kigoma (2); Singida (2); Tabora; Arusha; Morogoro; Mtwara; Songea; Pakistan
Religion¹	Christian (6), Moslem (5)	Moslem (5); Christian (4); Hindu (3)	Christian (9); Moslem (5); Hindu (2); Sikh (2); Jain (1)	Christian (19); Moslem (15); Hindu (5); Sikh (2); Jain (1)
Furthest Educational Level Achieved¹	Primary (9); Secondary (4)	Primary (6); Secondary (7); Undergraduate (2)	Primary (7); Secondary (6); Undergraduate (3); Graduate (2)	Primary (22); Secondary (17); Undergraduate (5); Graduate (2)
Vocational Training	None or on-the-job (8); Some (5)	Some (8); on-the-job or none (4)	Some (12); on-the-job or none (4)	Some (25); on-the-job or none (16)
Parent's Occupation¹	Farmer (5), business (4), craftsperson (3), other	Craftsperson (5); business (5); teacher (2)	Farmer (4); civil servant (3); craftsperson (3); other (3); business (2); teacher (2)	Business (11); craftsperson (11); farmer (9); other (4); teacher (4); civil servant (3)
Socioeconomic Status as Child¹	Poor (7), middle (5), uncertain (1)	Poor (1); middle (10); wealthy (1)	Poor (3); middle (12); wealthy (2)	Poor (11); middle (27); wealthy (3); uncertain (1)
Number of Years in Business	0-5 yrs (4); 6-10 yrs (3); 11-15 yrs (3); 16+ yrs (3)	0-5 yrs (7); 6-10 yrs (1); 11-15 (1); 16+ yrs (3)	0-5 yrs (6); 6-10 yrs (4); 11-15 yrs (2); 16+ yrs (4)	0-5 yrs (17); 6-10 yrs (8); 11-15 yrs (6); 16+ yrs (10)
Number of Employees	0-2 (1); 3-5 (5); 6-10 (2); variable (5)	0-2 (1); 3-5 (4); 6-10 (2); 21+(3); variable (2)	0-2 (2); 3-5 (2); 6-10 (3); 11-20 (1); 21+(4); variable (2)	0-2 (4); 3-5 (11); 6-10 (7); 11-20 (1); 21+(7); variable (9); uncertain (2)
Initial Source of Financing for Business	Independent savings (8); family financing (4); uncertain (1)	Independent (5); family financing (4); corporate or other sponsor (3)	Independent (5); family financing (5); corporate or other sponsor (4); government or bank support (2)	Independent (18); family financing (13); corporate or other sponsor (7); government or bank support (2); uncertain (1)

Notes: 1. Count is greater than total sample size due to multiple respondents from the same firm

are highlighted. The chapter closes with a summary discussion of these characteristics as they relate to the typology of minimalists, pragmatists, and maximalists.

Industry and Firm Structure

In terms of industry, the majority of firms (29) were in carpentry and furniture making and most enterprises operate on a small scale. Figure 5-2 summarizes the industries and firm structures for the entire sample and in relation to the social typology. Furniture makers are distributed fairly evenly among the three categories as are the metal workers. The other industries represented – foam mattress production (3) and cotton processing (1) – are found only in the pragmatist and maximalist groups.

Firms are further segregated in Figure 5-2 by their basic structure or mode of operation. Three categories were used to distinguish between the firms: cooperative-type operations, independently operated firms (this includes family partnerships), and corporate or externally sponsored operations. Cooperatives numbered fifteen (15) in total and all were for furniture making and carpentry. Typologically, most cooperative participants were minimalists (n=9) while the majority of independent firms were maximalists (10). Corporate or externally sponsored firms (7 in total) were distributed between the maximalist (4) and pragmatist (3) categories. Interestingly, no corporate-sponsored firms were found to be minimalists. The distinction between the typological categories for cooperatives (mostly minimalists) and externally sponsored firms (mostly maximalists) offers some insight into the role of capital for facilitating social relations in business.

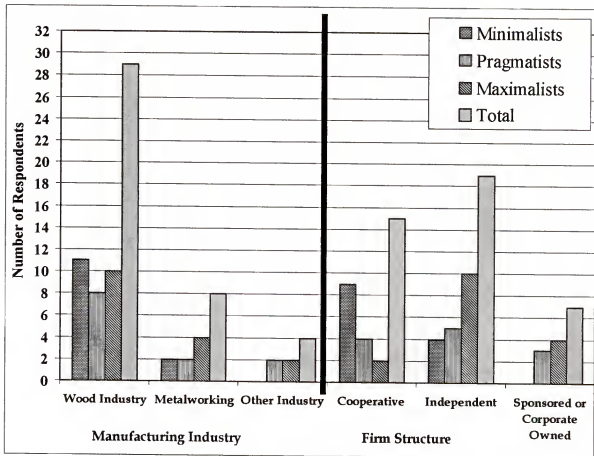


Figure 5-2: Type of Manufacturing and Firm Structure for the Sample

Respondent Demographics

Average age for the sample was 36.5 years with a median of 35 years. Figure 5-3 charts the age breakdown and demonstrates that there is little overall difference between the minimalists, pragmatists, and maximalists. However, median age (see Table 5-2) rises slightly from the minimalists (median age = 32) to the maximalists (36) and this may demonstrate something about the influence of experience on the extent to which a person is known and knows people in the Mwanza business community. Moreover, the

ability to trust may improve with experience and this may contribute to the higher median age evident among the maximalist group.

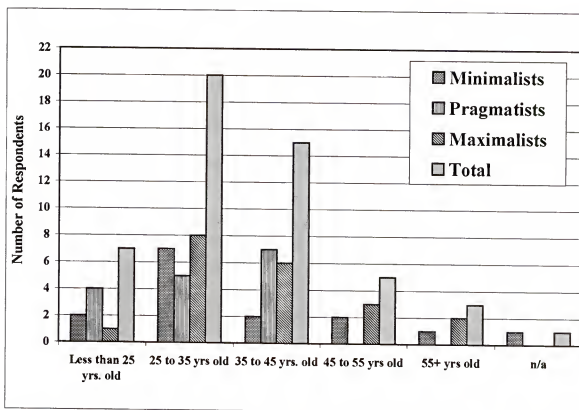


Figure 5-3: Respondent Age Breakdown

As shown in Figure 5-4, a businessperson's home region tells us little about his or her social tendencies except that no foreign-born respondents were classified as minimalists. In general, immigrants from outside the Lake Victoria basin were more likely to be in the pragmatist and maximalist category. This finding may relate to the fact that many of the respondents born outside of Tanzania work for large-scale companies or wealthy sponsors. Religious beliefs, also summarized in Figure 5-4, demonstrate little except that none of the Hindu respondents were classified as minimalists. Otherwise, Christian and Muslim respondents were equally divided into the three typological groups.

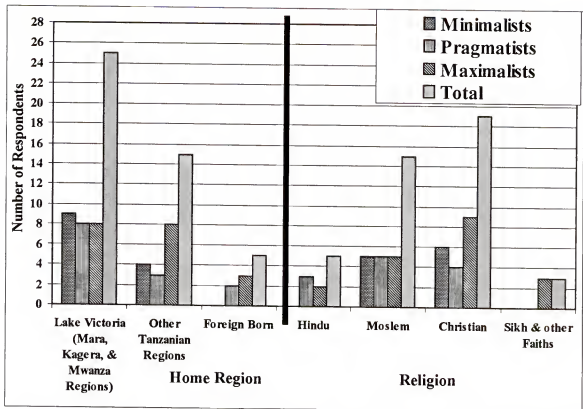


Figure 5-4: Home Region and Religion Breakdown for the Sample

Training and Educational Characteristics

Unlike the demographic variables, education and vocational training characteristics show trends, particularly in relation to the minimalist category. Figure 5-5 charts the levels of vocational training and formal education for the overall sample and the individual typology categories. The majority of respondents had only a primary education ($n=22$) and only seven (7) had some form of post-secondary schooling. The minimalists had the least education (only 4 of 13 beyond the primary level) and education levels increased when shifting to the pragmatist and maximalist groups. Education levels are highest among the maximalists, two of whom have achieved graduate degrees. There

are significant differences in years schooled for the minimalists when compared with the pragmatists and maximalists.³ Vocationally, the majority of respondents (25 out of 41) received some formal technical, vocational, or business training but most minimalists (n=8) received their training informally or on-the-job. Most maximalists and pragmatists received some vocational training or had taken courses in business. However, the differences in vocational training between these groups and the minimalists were not significant.

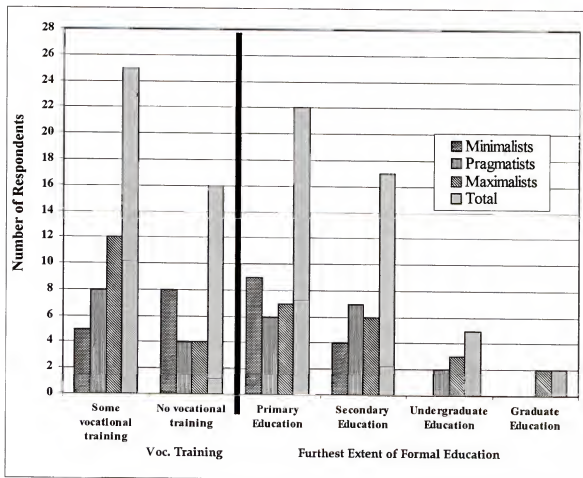


Figure 5-5: Extent of Formal Vocational Training and Education for the Respondents

³ The one-tailed P-value for the difference in the education level means between the pragmatists and minimalists was 0.0105. The one-tailed test for the minimalists and maximalists was 0.008. There was no significance in the difference between the education levels for the pragmatists and maximalists.

Socialization Factors

Socialization factors were measured through two variables: socioeconomic status as a child and parental occupation. These characteristics demonstrate little, however, except in giving a hint to class distinctions between the minimalists and the maximalists. Figure 5-6 summarizes the economic status of the respondents as children. The majority of the sample considered themselves to come from an average or middle-income background (27 out of 41), eleven (11) considered themselves to be from a poor upbringing, and three (3) believed they came from a wealthy background. The majority of the minimalists (7 out of 13) described their upbringing as poor while most pragmatists and maximalists self-identified with the middle-income category. Those respondents identifying themselves with a wealthy background were divided between the pragmatist (1) and maximalist (2) categories.

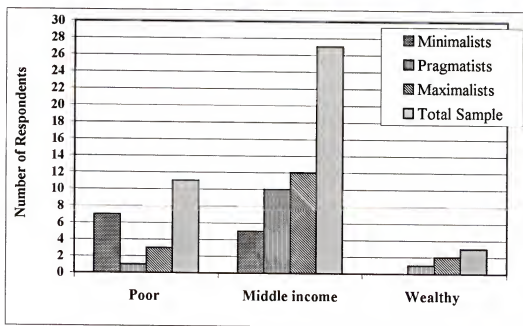


Figure 5-6: Socioeconomic Status of Respondents as Children

Parental occupations for the sample are summarized in Figure 5-7 and were roughly categorized as business, farming, craftwork, teaching, civil service, or other. The most common parental occupations were general business and craftwork while the remainder of the sample's parents were, in descending order, either farmers, teachers, other occupations, or civil servants. Within the typology, these occupations demonstrate no clear trends except that all respondents whose parent or parents were civil servants (3 in total) were classified as maximalists. For the children of teachers (4 cases), two were pragmatists and two were maximalists. The parents of minimalists were split fairly evenly among farmers, business people, and craftworkers.

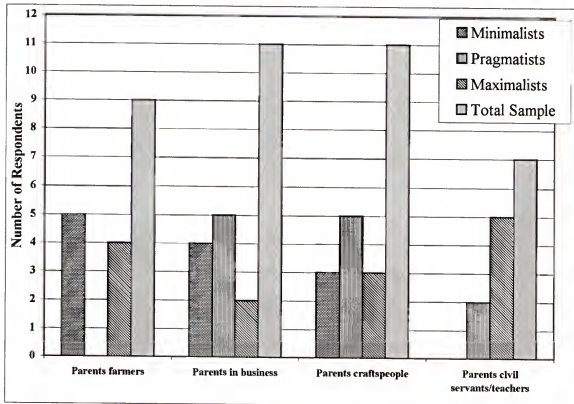


Figure 5-7: Occupations of Respondents' Parents

Firm Size and Age

In terms of the businesses, three key variables were assessed: firm sizes, lifespans, and financial bases. Firm size was evaluated as the number of employees regularly working at a firm. Figure 5-8 summarizes the size breakdown for the sample. The majority of firms (n=11) had three to five regular employees with the second largest category (9) being those firms utilizing highly variable employment systems (i.e., contingent labor) based entirely on their daily needs for labor. Seven (7) firms had six to ten employees and seven (7) had greater than 21 employees. The remainder of the firms had fewer than three workers (n=4) or fell into the range of eleven to twenty employees (1). Minimalists were evenly divided between variable firm sizes (n=5) and three to five employees (5) with the remainder either less than three (1) or between six and ten (2). The pragmatists showed no clear trend, the majority being in the three to five category (n=4) and the second largest group (3) falling into the greater than 21 category (2). The maximalists also demonstrate little and, if anything, the most diversity in terms of the number of employees. Employment levels among the maximalists covered the entire sample range and no single category clearly dominates.

The ages of firms varied from a few months to more than 30 years. Figure 5-9 summarizes the years in operation for the sample. Across the three typological categories there is no clear trend and, if anything, a relatively even distribution of firm ages. The majority of firms were relatively new – less than ten years old – and those being in operation for less than five years were the largest group represented (17 out of 41). The second largest group was older firms as ten (10) had been in operation for greater than sixteen years. The sixteen-year dividing line for the age categories was used as it represents the beginning of Tanzania's structural adjustment policies in 1984. These

older firms are significant because they survived the economic fallout of the 1980s and because they have continued to adjust to the rapidly changing economic conditions created by the liberalization process. The next largest groups were those firms between the ages of six and ten (8 in all) followed by firms in the eleven to fifteen year range (6). Among all the other age groups, there are no clear correlations between the age of firms and the minimalist, pragmatist, and maximalist categories.

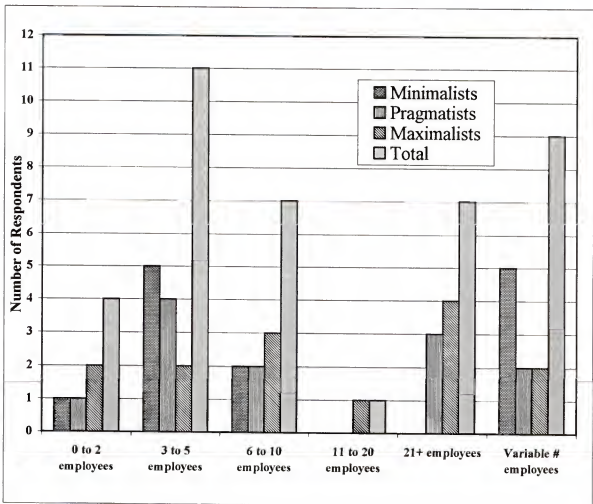


Figure 5-8: Number of Employees for the Sample (Firm Size)

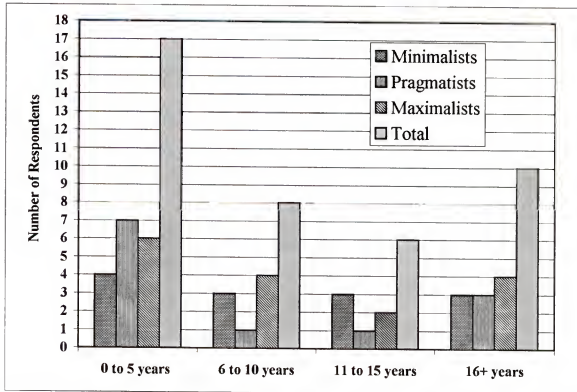


Figure 5-9: Years in Business for the Sample

Initial Source of Finance for Firms

The final characteristic provided in Table 5-2 is the businessperson's initial source of financing to support the manufacturing venture. Figure 5-10 summarizes the financing mechanisms used by the firms in the sample. Of the respondents who answered this question, eighteen (18) independently financed themselves, thirteen (13) relied on family or inherited a family operation, six (6) received non-family corporate or external sponsorship (private sector based), and two (2) received formal support from the government or a financial institution. In relation to the social typology, there were interesting results. Two-thirds of the minimalists (8 out of 12) independently supported themselves with the remaining four relying on family financing to acquire capital. No

minimalists received financial backing from corporate sponsors, the government, or other, non-family, financial sources. Among the pragmatists, no dominant financing strategy emerged as five (5) out of twelve supported themselves independently, four (4) relied on family support, and three (3) had external sponsorship. The maximalists showed a similar breakdown, the major distinction being that two maximalists have received formal government or financial support. In keeping pace with the other maximalist trends, It appears that these maximalists had more access to capital and more formalized business operations thus possibly making them more legitimate borrowers in the eyes of banks and aid agencies.

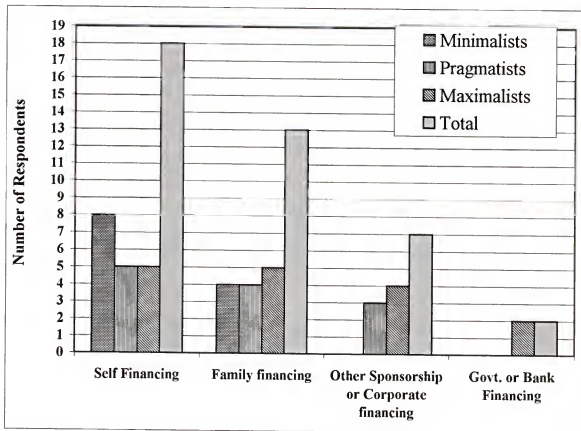


Figure 5-10: Initial Source of Financing for the Firm

Descriptive Characteristics and the Social Typology

As was hoped at the outset of the field research, the sample represents a diverse range of ethnicities, education and training levels, religious backgrounds, and firm sizes and structures. A few general observations can be made when comparing these demographic, capacity-related, and firm-based characteristics to the social typology of respondents. It is important to note that there are exceptions to the general trends within the groups and that the discussion below is meant to be a general, descriptive introduction to the typological groups, not an empirical analysis of the relationships between these groups and the independent and dependent variables.

The Minimalists

As Table 5-1 indicates, minimalists have the fewest external links, the least dependence on networks, and the lowest macro-level trust scores. As indicated by the other variables, minimalist firms generally perform poorly, innovate rarely, and use meso-level trust mechanisms to the highest degree. Minimalists are significantly less innovative than the pragmatists and maximalists both in total levels of innovation and in levels of creative innovation. However, there is no significant difference between the minimalists and pragmatists in relation to responsive innovation. This finding supports a contention, elaborated further in later chapters, that minimalists are responsive to market changes but not progressive in changing markets. On the whole, minimalists grind out a living by earning a little each day in situations where risks are mitigated through narrow and highly accountable social relations.

Most minimalists operate labor-intensive operations and many of these firms function on a subsistence level. Although individual skills in these firms may be high,

most minimalists are limited by a lack of education, vocational skills, business training, financial capital, and infrastructure. Many of these firms function as cooperative groups where there is a sharing of resources such as tools, workspace, and security services. Otherwise, every person works independently and what each person contributes to producing is what they are paid for. Variable levels of labor are most prevalent among the minimalists and this reflects the lack of formality among this group of manufacturers.

Beyond the cooperative and small-scale independent firms, there are a few minimalists who have a good deal of machinery, infrastructure, and even formal business training. These firms rely less on social relations and trust and their owners or managers prefer to avoid risk taking and the need to trust others in business deals. Cash is king among such minimalists and this is reflected in their relatively low levels of network dependence, their limited external connections, and their lack of interest in the use of higher-order (i.e., macro-level) trust mechanisms. In essence, despite the infrastructure and capital available to these firms, there remains a focus on minimizing risk through an extremely cautious approach to money handling. Thus these minimalists avoid credit giving and typically do no work without up-front money.

The Pragmatists

The results in Table 5-1 show that the total number of innovations and the number of creative innovations achieved by pragmatists are significantly greater than the minimalists but not significantly different than the maximalists. Nonetheless, innovation scores for the pragmatists are lower than the maximalists and this may relate to the pragmatists' different approach to business relations. Pragmatists scored significantly higher than minimalists in micro and macro-level trust but were about equal to them in

their meso-level trust scores. In relation to the maximalists, pragmatists' limited use of macro-level mechanisms and their relatively high reliance on meso-level trust emerge as the most significant findings.

In general, it appears that most pragmatists prefer to focus on the relatively efficient production of low-quality and simply fabricated goods. Because pragmatists concentrate on cost reductions and productivity improvements within the firm, relations outside the immediate scope of production are less important and pragmatists appear less willing to build relations with strangers (i.e., use macro-level trust) unless there are clear short-run benefits to the firm. This sort of behavior may limit pragmatists' access to diverse sources of information and this, in turn, may reduce their innovativeness.

Pragmatists are trickier to describe in general terms as they cover the range of capital levels, ethnic and socioeconomic backgrounds, firm structures, industries, and firm sizes. Few variables demonstrate any clear trends for the pragmatists themselves or in relation to the other groups. Only the level of education and training among the pragmatists is clearly and significantly different than the minimalists. Pragmatists are generally more highly educated and most operate firms beyond the subsistence level. However, in relation to the maximalists, pragmatists take a socially conservative approach to their business activities and appear more reluctant than the maximalists to discuss business ideas with others.

Two groups of pragmatists may be isolated through a general review of the sample. First, there are those pragmatists whom are relative newcomers to Mwanza (less than five years) and those who are trying to access more capital in the short term. The social networking and trust strategies utilized by these pragmatists appear to differ from

those pragmatists who have been established for some time or who have easy access to large amounts of capital. For newcomers, inexperience in local business and a lack of business connections appears to limit their ability to trust extensively. Because of this, network building is an important activity of these pragmatists. This type of behavior is also apparent among those pragmatists who are desperately in search of capital to expand or improve their businesses. Such pragmatists are mostly interested in business relations that have a clear potential for bringing capital to the firm in the short run. Owners and operators of these firms often spoke of their desire to find a “sponsor” or *mfadhili* for their venture and many were quite interested in getting to know a “wealthy” foreigner such as myself. The thought is that a foreigner would have the money and desire to invest or that I could provide connections to others willing to do so.

The second group of pragmatists are those who manage large-scale, typically foreign-owned or corporate-controlled, factories or firms. Many of these firms maintain extensive international links for business, internalize much business activity, and have generally lower trust scores than the maximalists. Some use networks mainly for product distribution and sales while others work hard at maintaining wide-ranging social connections throughout Mwanza. For these pragmatists, however, such business relations are largely utilitarian in function and are valued above all for their financial benefits, not for information, camaraderie, or ego building.

The Maximalists

Maximalists represent the most entrepreneurial group of manufacturers in Mwanza. As Table 5-1 indicates, these firms are most innovative, most dependent on networks, utilize the greatest number of external links, have the highest macro and micro-

level trust scores, and have the lowest meso-level trust scores. Maximalists are the most socially open businesspeople in Mwanza and this openness relates positively to the levels of innovation achieved in their firms.

Beyond the differences in trust, network dependence, and external link scores, the maximalists are difficult to separate clearly from the pragmatists. However, there are two distinctions worth mentioning. First, maximalists generally have higher levels of formal education than the pragmatists. Second, maximalists are more likely to have accessed formal financing mechanisms through banks, NGOs, government programs, or corporate structures. Third, low capital and small-scale maximalists may be distinguished from other groups by the density of their local networks, their general interest in looking outward for new ideas and business opportunities, and their willingness to use higher-order trust mechanisms to encourage risk-taking.

Beyond these general distinctions, the sixteen maximalists can be divided into three smaller subgroups. The first group includes the majority of the maximalists and is characterized by businesspeople who have high levels of trust, a strong dependence on networks, and higher-than-average levels of external links. These businesspeople are generally well informed, well connected, and open to knowledge building despite the fact that some have minimal capital and little formal education. These maximalists like to stay in touch with peers and have an affinity for new business ideas, particularly those coming from outside the Mwanza context. They are the most successful and most innovative businesspeople in Mwanza who generally do things bigger, better, smarter, and faster than the competition. Moreover, these individuals see few limits on their

abilities to grow their businesses for the long term except perhaps in their ability to access the capital necessary to support such expansions.

The second group of maximalists includes those smaller-scale firms that have less-developed networks and fewer external links but whose owners strive to maintain a high degree of openness to ideas and information. The greatest limitation on these firms is their financial instability and their inability to make connections to those having power or the kind of capital necessary to support their venture. Trust is present in high levels among these maximalists but without the right connections to key individuals, their firms face significant limitations that may prevent a transformation beyond a small-scale operation.

The third group of maximalists includes those respondents who have lower levels of trust than most maximalists but who maintain a higher-than-average dependence on networks and the use of external links. These firms are generally larger in scale and have extensive links to the outside either because of a corporate structure or because the owner or manager is of foreign origin. In all of these cases, respondents were managers of operations owned by non-local investors and had little control over the amount of capital available to the operation at any time. Nonetheless, these maximalists view social relations as important, particularly in that they facilitate the gathering of market information and the building up of a customer base or distributor system.

Summary

In this chapter, the context of business relations in Mwanza was described and the typological categories were formally introduced. The overview demonstrates the diversity of the sample and the lack of clear and consistent trends connecting the social

behavior of respondents to descriptive characteristics, such as age, ethnicity, race, and wealth. The findings also indicate that the behavior patterns of businesspeople in Mwanza are not driven solely by such factors but that agency and individual thought processes may also play a significant role. Specifically, it was observed that although factors such as ethnicity, vocational training, and education level may influence the quality of the networks available to an individual, the utility of these relationships is ultimately driven by his or her ability to take advantage of the social circumstances.

Typological categories based on social competence and openness help us better understand the role of social networks for business. The three typological groups – minimalists, pragmatists, and maximalists – offer a means through which one can account for different personality types in a business community. The categories reflect, from minimalist to maximalist, an increasing willingness to extend him or herself in social relationships. The categories also relate to the quality and extent of the social networks on which businesspeople rely in their daily business activities. Moreover, it is found that differences in social attribute scores (e.g., network dependence, external links, and trust mechanisms) relate to differences in performance and innovation. The specific relationships between these variables are detailed in the chapters that follow.

Chapter 6 describes three key types of social relations used by businesspeople in Mwanza and frames them in relation to the conceptual framework described in Chapter 2. The framework is useful for demonstrating the key conventions, identities, representations, and norms shaping these relations and for describing how trust is achieved in them. Chapter 7 tackles the empirical relationships and correlations between network characteristics (the structural side), trust variables (the agency side), and the

performance and innovation levels observed in the firms surveyed. The goal of these chapters is to identify the social factors that help make one group of firms more innovative or successful than another group. Throughout these analytic sections, the reader is encouraged to refer back to this chapter as a general guide to the sample and to the Mwanza context.

CHAPTER 6 THE STRUCTURES AND LOGICS BEHIND BUSINESS RELATIONS IN MWANZA

Introduction

As the general findings indicate, social relations mean different things to different firms but, in general, appear to have a positive influence on performance and a manufacturer's ability to innovate. The typology highlights these differences and demonstrates some of the "personality types" observed in Mwanza firms. However, these findings provide us with little guidance as to how social relations among firms occur, what their purposes and functions are, and what factors lead to their construction. This chapter addresses these questions by deconstructing some of the social relations observed among firms and businesspeople in Mwanza.

Specifically, the conceptual framework developed in Chapter 2 is applied in an examination of three key types of social relations observed among manufacturers in Mwanza – credit-accessing, reputation-building, and information-gathering. These relations are based on three different "logics" for participation in networks. Moreover, the relational categories demonstrate how businesspeople operate in different cognitive and normative frameworks depending on whom they are communicating with and what they are in need of at a given moment. By deconstructing these logics it is possible to identify the normative, regulative, representative, and constitutive factors that lead to the creation of business conventions, establish what actions and identities are legitimate in a

given social circle, and enable trust to emerge in the relationship between two individuals.

In analyzing social relations in manner, it becomes apparent that an agent's use of networks goes beyond rational notions of transaction costs and that informal institutions are more than structures "bounding" rationality. Conventions are important, not only because they help streamline exchange relations but because they help embed economic relations in the social context. The embedding process is critical for individual identity formation, for the creation of standards for action and bases of legitimacy, and because it facilitates trust building in business relationships and networks. Embedding thickens the flow of information in networks, enables the exchange of tacit knowledge, and leads to the development of business routines among firms.

Because informal business networks, as social structures, are imposed on and infused into individuals' cognitive processes, it is difficult to generalize about how these signals and structures will be interpreted, innovated, and embedded in the social context. As the social typology of firms demonstrates, there are significant differences in the willingness and ability of individuals, even in this small sample, to participate in social relations and networks. Networks are what agents make of them and the quality and extent of one's social relations are driven in large part by his or her interpretations of the world and his or her openness toward building relations with others. If we are to better understand how networks and social relations contribute to innovation and performance in firms, we must first understand what drives and limits one's interpretations of social structures and his or her perceived capacity for action in a given social context. Without

such an understanding, it will be difficult for policymakers to facilitate the creation of networks and social capital in developing regions and among firms.

The chapter begins with a brief description of the social context in which manufacturing firms interact in Mwanza. Ettlinger's (2001) concept of multiple logics is then introduced and its relevance to this study detailed. The discussion then shifts to the application of the conceptual framework developed in Chapter 2. The three key types of networks or social relations – credit, reputation, and information-based – are deconstructed, their overlapping nature is discussed, and the significance of the findings are detailed, particularly as they relate to Hypothesis H1. Beyond providing support for H1, the findings demonstrate the problems associated with universal assumptions about rationality in business relations. The chapter closes with a summary and a brief introduction to Chapter 7.

The Social Structure of Business in Mwanza

In general, networks among manufacturers in Mwanza are loosely constructed and informally maintained. Outside of cotton and fish processing, there are no formal industry-based or commercial organizations to facilitate information exchange between firms. Civic organizations (e.g., the Lions Club and Rotary Club), religious communities, and private clubs (e.g., the Mwanza Yacht Club) do exist and membership is important for some, particularly the owners of larger-scale firms and those manufacturers of Asian descent. Although businesspeople may meet regularly through these organizations or through attendance at official functions, much communication occurs through chance meetings and informal conversation.

For the majority of firms, social relations are informal in structure and sporadic in timing. Communication is on a “catch-as-catch-can” basis and there is little or no formal planning for meetings. Most respondents commented on the importance of informal meetings at suppliers, machine shops, saw mills, or on the street and many stressed the importance of simply wandering around the city to see what is happening in other manufacturing areas. Despite their informality, most businesspeople value these encounters and many use them to scope out the competition whenever possible. Scoping ranges from passive observation and assessment of the products on display at a manufacturer’s showroom or workshop to extended discussions with other businesspeople. These conversations typically focus on the exchange of information regarding recent sales, prices of merchandise, and costs for inputs. In some cases, conversations may be more substantial and relate to such issues as government policies or the methods employed in designing and making products.

Despite the lack of formal structures to facilitate communication between firms and within industries, information flows quickly throughout the city, particularly in times of crisis. Managers are generally aware of the actions of their competitors and, in some cases, there are long-standing and close ties between firms.¹ Innovations in product design become public knowledge and common practice quickly, particularly if they are popular among consumers in town. Copying others is standard practice and is especially common among micro-scale and informal firms in the furniture industry.² In the metal-

¹ In one case, it was discovered that one of the metal-working firms surveyed had been started by workers from another firm also included in the sample. The firms are direct competitors yet cordial relations exist between the managers and owners.

² Small-scale artisans (*fundi*) sometimes pose as customers in the large retail stores in order to copy a novel design or an imported product. Owners of these stores dislike the practice immensely and try their best to keep individuals out of their stores who appear to be copying designs.

working sector, machine and part designs are also copied but less effectively and extensively than was observed in the furniture industry.

Social relations are also important in times of crisis or when the municipality is actively cracking down on small-scale or unlicensed businesses. Warnings about eviction actions are spread throughout the manufacturing areas and tabs on the whereabouts of the police and the eviction teams are maintained. Business owners exchange information about their experiences with the authorities and the successful strategies used to deal with these problems. Bits of advice, such as where to place one's items for sale in order to avoid harassment, and tips on when and how to restart the business once the evictions cease, are critical as they enable small-scale firms to continue operations with limited interruptions. These crisis-related communications are particularly useful for newcomers who may have little understanding of their rights or about the extent to which the municipal authorities will pursue them.

Social relations among firms in Mwanza also facilitate the development of friendship and camaraderie among businesspeople. It is important to most businesspeople that they have good relations with competitors and owners of other firms. However, as many respondents stated or inferred, business is business and friendship is a separate thing altogether. When deals are negotiated, it is not taken personally if discussions become hard-nosed and compromise seems unlikely. One larger-scale businessowner mentioned that you should be able to relax and joke with competitors at the end of the day regardless of the difficulty involved in negotiations and daily business. In informal or craft-based microenterprises, such as the *fundi* producing furniture and metal parts, it is common practice to meet casually with one's *wenzake* (a group of

coworkers and friends) before, during, or after work. Many respondents referred to these conversations as important means through which they get new ideas and information. Moreover, most who mentioned their use reflected on these relations in a positive light and thought of them as quality time spent with friends.

Most interesting, perhaps, is the finding that being known by others is an important means through which a person becomes characterized as trustworthy. Isolation infers that one is keeping secrets, is unfriendly, or is not competing fairly with other businesspeople. Businessowners are thus normatively directed to maintain good and relatively cordial relations with their competitors and peers. Such relations may simply involve greetings and handshakes but even these are considered important indicators of one's willingness to compete fairly and to respect the activities of other firms.

In sum, social relations are an integral part of the day-to-day activities of businesspeople in Mwanza. They help provide valuable resources and create business opportunities, they act as means of protection in times of crisis, and they are means through which friendships are built and relationships expanded. Of particular importance to manufacturers in Mwanza, however, is the use of social relations as a means for accessing credit, building a reputation, and for gathering information. In the section that follows, these three types of social relations and networks are deconstructed to elucidate the processes leading to their creation and maintenance.

Multiple Logics and Key Business Relations in Mwanza

Ettlinger (2001) developed the concept of "multiple logics" as a means of getting at the processes driving the development of social networks and trust. Although her research focuses on the workplace and labor organizing issues, its applicability to this

context is clear. In her conceptualization, multiple logics represent the different dimensions of every individual's life that overlap and lead to the sentiments that encourage one person to build a relationship with another. Consideration of these competing "sentiments" is important if we are to understand how innovative business networks actually function. As Sverrisson (2000:174) astutely observes,

Most social actors participate in many different networks, and they take on different roles depending on the type of network in which they are involved at a particular moment. Taking on a different role implies drawing on a different set of conventions of action and interaction, of meaning, expectations and interpretation, in short, to adopt different social practices.

Ettlinger (2001:7, emphasis in original) effectively builds on this notion in her conceptualization of sentiments and states,

Sentiments can be economic in the sense of profit or efficiency, political in the sense of power relations, cultural in the sense of behaviors conforming to social tradition, intimate in the sense of friendship or sexuality, and familial in the sense of kin-based feelings or obligations. Different kinds of ties, and sentiments underlying those ties, in turn have important implications for issues pertaining to *networks*. . .

Thus the sentiments leading to the creation of relationships can emerge for a variety of reasons and the logic behind one's building of social relations depends on his or her feelings and values. In this conceptualization, agents are crucial units of analysis and Ettlinger stresses the importance of viewing trust as inter-personal, not inter-firm.

Ettlinger's concept is applied to assess the "logics" driving businesspeople to develop business networks in Mwanza. The major objective here is to deconstruct these networks and relations in order to identify the key factors driving their creation and maintenance. As Ettlinger (2001:18) rightly states,

By considering the variety of behaviors and social relations among people, we understand that motivations for, and consequences of, actions may be non-economic in accordance with a variety of logics.

Simply stated, having an understanding of the processes driving social behavior is as important than being able to identify the patterns or outcomes of such behavior. The conceptual framework developed in Chapter 2 is applied here to explore these processes, particularly as they relate to key business relations in Mwanza.

Credit-based, reputation-building, and information-gathering relations are most important to businesspeople in Mwanza and are viewed here as “logics” driving the development of business networks in the city. In the discussion that follows, each type of relation is broken down into its structural (normative) and agency (cognitive) components using the conceptual framework presented earlier. In doing so, the sentiments driving participation in these relations are detailed and the conventions, bases of legitimacy, and mechanisms of trust that shape them are identified.

Credit Relations

Credit relations are the most commonly used and fundamentally useful business relationships in Mwanza. Fafchamps (1997) thoroughly assessed the use of credit relations by manufacturers in Zimbabwe and found that most firms utilize informal credit mechanisms with suppliers or their customers. Bagachwa (1997) evaluated the dynamics of informal credit relations in Tanzania and finds their use widespread, particularly among small-scale enterprises. He (1997:155) identifies four sources of informal credit: financial arrangements among relatives, neighbors, and friends; commercial moneylenders; savings and credit societies; and rotating savings and credit associations (RoSCAs). In most cases, one's access to credit depends on his or her personal ties as these are considered important means through which financial accountability is ensured. A lender's knowledge of a borrower's personal characteristics and the social proximity

between the two individuals are particularly important factors that can make or break informal credit transactions.

In Mwanza, credit relations between firms are best classified as commercial in nature even though they are not typically brokered through professional moneylenders. Instead, credit is usually given by suppliers (e.g., of timber or hardware supplies in the case of furniture makers) and is manifest as materials not cash money. Credit relations are especially important for small firms that struggle to stay afloat and large firms that sell bulk items to wholesalers or retail distributors. Credit relations also serve as a mechanism for securing the capital necessary to purchase new equipment. For some, particularly small-scale businesspeople, credit is the difference between working and not working. Larger-scale businesses also use credit relations, but in many cases these firms are the providers of credit, not the receivers. In many instances, credit giving by large firms is vital to establish a customer base and it may be the only way to stay in business.

Informal credit and loan mechanisms are necessitated in part because of the lack of formal financing options in Mwanza. Although micro-credit NGOs and village-banking organizations are presently flourishing throughout the region, their use by manufacturers has been minimal at best. Manufacturers complain that the available loan sizes are insufficient for the purchase of capital equipment, that interest rates on the loans are too high, that repayment periods are too brief, and many are simply discouraged by the extensive rules and regulations accompanying a loan. Because of this, many small-scale manufacturers are constantly on the lookout for an *mfadhili* or sponsor to give them a low-interest loan or financial support in their business activities. These types of

connections are rare, yet the desire to meet potential sponsors or creditors is an important factor driving businesspeople to build networks.

Figure 6-1 conceptualizes credit-based relations in Mwanza. In this framework, agents are viewed as credit givers, seekers, and receivers while the structural elements influencing their actions include the routines, rules, roles, and norms that frame and shape credit relations. The key cognitive and structural factors influencing credit relations are highlighted in the diagram and summarized below. The discussion that follows also highlights the key conventions that structure credit relations, the sources or bases of legitimacy used to help identify valid partners in a credit relationship, and the means through which trust is created and maintained between credit givers and receivers.

Cognitively, there are representative and constitutive issues influencing agents' actions in credit relations. Representative elements relate mainly to the perceived accountability of the person receiving credit. Simply stated, a credit seeker or receiver should represent a reliable, accountable, and trustworthy person to the credit giver. Key representations associated with these identities include: friendliness, respectfulness, good appearance, good habits, politeness, timeliness, and being well-spoken or a good communicator. It is also generally better that the credit receiver or seeker be identified as a member of the credit giver's business, ethnic, or religious community, that he or she is known by individuals close to the credit giver, or that he or she generally has a good reputation.³ In essence, it is imperative that the credit receiver not appear as a complete stranger to the credit giver. The importance of these representative elements varies from individual to individual but persons seeking credit must consider them on some level.

³ Fafchamps (1997) similarly found reputation to be an important variable influencing the willingness of credit givers to trust credit seekers. Race was also found to be an important variable in his study.

Constitutively, there is an implicit understanding among credit seekers that one's behavior is an important indicator of accountability and that seekers are subject to the power of credit givers. Conversations can be particularly important and many businesspeople discussed how they "measure" people's trustworthiness through casual dialogue on the street or at their business locations. It is especially important that credit receivers or seekers not sound pushy, boastful, or proud when negotiating terms. Most importantly, credit seekers need to be aware of their limited power in credit relations. Because of this, credit seekers strive to build better reputations in order to increase their leverage in credit negotiations.

Normatively, credit is something earned through repeat business and the level of credit available to a credit seeker appears to build up over time and through shared experience. Interestingly, this informal system of building a credit base is similar to that utilized by most micro-credit organizations and appears to have been present in Mwanza for some time. In general, credit seekers expect to receive credit from a supplier if they have had previous transactions with him or her and have maintained a good payment record. It is commonly understood that multiple transactions must occur before credit becomes available to a credit seeker. As for credit givers, credit giving is viewed as standard procedure in many firms, particularly among timber suppliers, saw mill owners, and hardware suppliers working with furniture makers and carpenters. Competitiveness and continuing business often depend on these suppliers' willingness to extend credit as credit seekers have numerous supply options. Moreover, because credit relations are vital for sales and production in many firms, businesspeople often build long-standing relationships around town through credit-based exchanges.

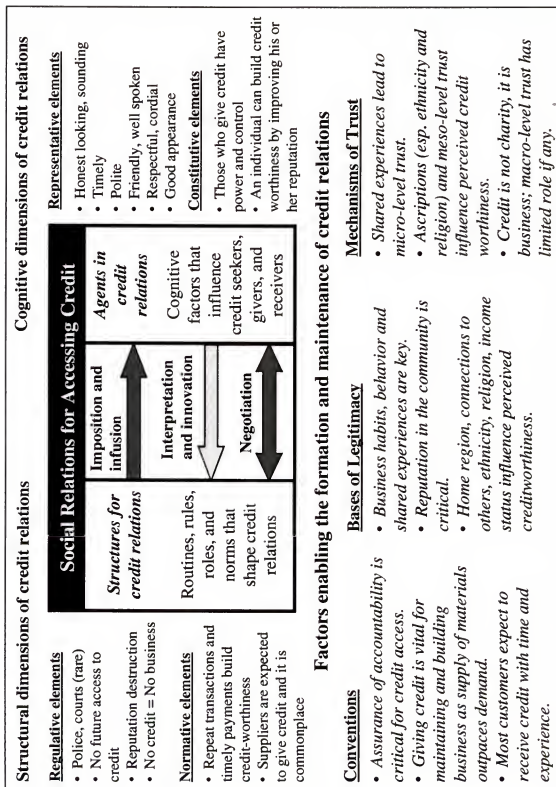


Figure 6-1: An Institutional Framework for Credit Relations

The key conventions shaping credit relations relate to the routines and norms used in determining and ensuring the accountability of a credit seeker. If accountability cannot be assured readily through the norms, rules, and representations outlined above, it is unlikely that credit will be provided. What an assurance is precisely depends on the credit giver and his or her willingness to extend materials or finance to another individual. Another important convention influencing credit relations relates to the expectation of receiving credit and its importance for the survival of not only credit-receiving firms but also credit-giving firms. Customers expect credit from suppliers and manufacturers, particularly if there is a history of doing business together. Moreover, most suppliers, particularly of bulk materials and primary inputs, view credit as an important means through which they may maintain a customer base for the long term.

Legitimacy in credit relations is crucial, particularly for credit seekers. It emerges from conversations between seekers and credit givers, through shared business experiences, and from the ways in which credit seekers portray themselves to credit givers. Bases of legitimacy are influenced by a variety of sources and factors including: one's timely payment of bills, one's conversations, habits, reputation, and behavior in business and the community, one's connections to individuals whom the supplier knows and trusts, and, in some cases, from ascribed factors such as home region, ethnicity, religion, income status, and appearance. If a credit giver is reluctant to provide assistance, credit seekers may appeal to one or several of these bases in order to reassure the giver of the seeker's accountability.

Trust in credit relations is largely a function of shared experiences and micro-level interactions between credit seekers and credit givers. Meso-level ascriptions may also facilitate or prevent the development of trust in credit relations, particularly when they influence the credit giver's perceived legitimacy of the credit seeker. Macro-level trust has a limited role in credit relations since giving credit is viewed by most as a necessary part of business, not a charitable or goodwill-oriented institution. Moreover, macro-level trust is limited by the ineffectiveness of and hassles associated with the legal system and police in Mwanza. Businesspeople have little confidence in the ability of these institutions to protect their assets and interests in situations where cheating occurs.

Reputation Relations

Reputation is an important asset for businesspeople in Mwanza for two major reasons. First, reputations are useful as marketing tools for one's business. Second, reputation influences one's access to financial and informational resources and is thus important for innovation and the creation of new business opportunities. Reputations are, in essence, representations of one's integrity, acumen, and personality that act as symbolic influences on the transfer of resources and the perceived status and social power of an individual. Information and capital appear to flow more freely to those with good reputations while those having poor reputations (or being outsiders, newcomers, or strangers) face social obstacles to information gathering and credit access. Moreover, poor reputations may constrain one's capacity for social action and limit the business opportunities made available to him or her.

Reputations are especially important in the Asian business community. Information about the reliability and accountability of an Asian businessperson is

available within the numerous religious communities in Mwanza. Such information can be obtained through a phone call or casual discussion with another Asian businessperson and reputations are typically passed down through generations in a family.⁴ Among Africans, reputations are most useful for building up a customer base or for identifying quality workers and suppliers. Because of the diversity of ethnic groups in Mwanza, and the relative lack of technology (e.g., cellular phones or the Internet) and formal institutions connecting African businesspeople, reputations are more difficult to track and outside references appear less important to these businesspeople. However, among both Asian and African businesspeople there is a general understanding of what makes or breaks reputations. Behavior in the business community and one's actions in exchange relations are thus governed in part by this knowledge.

Figure 6-2 summarizes the structures and agents related to reputation-building relations in Mwanza. Agents in this case are reputation builders and reputation makers and structural factors relate to the regulative and normative elements that shape and influence reputation-building relations. Cognitive and structural elements of these relations are detailed below and the key conventions, bases of legitimacy, and mechanisms of trust are highlighted.

Cognitively, representative and constitutive elements play an important role in determining what a good reputation looks like and how much power an individual has to improve his or her current reputation. Representatively, good reputations are identified

⁴ One Hindu businessman described for me the importance of reputation and the ways in which Asian businesspeople check references in East Africa. He referred specifically to a recent business deal that he had closed with another businessperson in Dar es Salaam. Although the other businessperson was from a Muslim community in Dar es Salaam, the Mwanza businessman's links to a local branch of the same community provided a useful reference when the Dar es Salaam businessperson placed a call to friends in Mwanza. Thus the Hindu businessman's local reputation was accessible outside Mwanza and was an important factor in closing the business deal.

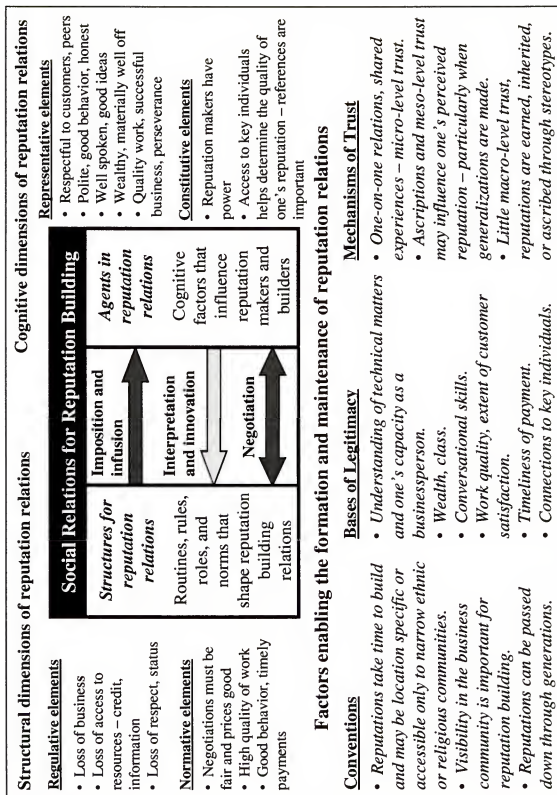


Figure 6-2: An Institutional Framework for Reputation Relations

with a number of symbolic characteristics. Persons with good reputations are: respectful to customer and peers, good with money, ethically behaved, honest, hard working and able to persevere, successful or wealthy, able to charge higher prices, technically skilled, and well spoken. Although perseverance and honesty were perceived as key characteristics of a good reputation, success and wealth appear to be most important.

This finding is interesting because many respondents ascribed good reputations to large-scale business owners mainly because of these businesspersons' wealth and success. Ironically, most respondents had never actually met the businesspeople in question and knew little of their true character and nature.⁵ In essence, there may be little need for quality shared experiences or adherence to norms when the success or wealth of an individual is clearly evident to the reputation maker (or assessor) as such an individual may be able to offer the maker's (assessor's) firm bigger and better business opportunities. Thus it appears that the power of wealthy individuals drives many in weaker financial positions to conduct business with them despite the fact that the means through which a "good" businessperson achieved success are unknown to the less successful individual. This sentiment is prevalent among small-scale manufacturers despite the fact that most stressed the importance of observed attributes such as good behavior and honesty for the creation of a good reputation.

Constitutively, a businessperson's ability to change his or her reputation is dependent upon his or her respectfulness toward reputation makers and his or her ability to access persons in more prominent social circles. Relations with customers and

⁵ One example of this phenomenon was the admiration among most small-scale furniture makers for the owner of what used to be the largest furniture factory in the city. When asked to identify businesspeople with good reputations, many small-scale furniture manufacturers referred to this company and to the individual who founded it. Ironically, he has been dead for over fifteen years and his company no longer manufactures furniture.

suppliers are particularly important. Word-of-mouth advertising and repeat business are crucial for the survival of most businesses. Reputation owners are thus dependent on reputation makers such as customers to improve their status in the business community. The power that reputation makers have is quite variable, however, and depends significantly on the maker's social status or on his or her purchasing power and financial links. Key individuals in reputation relations are those having the "right" connections and it is imperative that reputation builders deal carefully and respectfully with these people. Examples of such individuals include: wealthy customers, expatriate clients, large-scale suppliers and wholesalers, and government officials.

Structurally, there are significant regulative and normative issues shaping reputation-building relations. Reputation builders are regulated by the fact that a poor reputation may mean less access to information, credit, and business opportunities, that fewer customers means less income, and that a damaged reputation means less status in the community. Keeping an eye out for one's reputation is thus an important business strategy useful in all types of firms and industries. This is not to say that individuals do not risk experiencing sanctions but, rather, that most understand the reputation-related implications if they are caught cheating, if they fail to pay creditors in a timely fashion, or if they behave disrespectfully or slovenly.

Reputation relations are also structured by the norms, routines, and scripts associated with the behavior patterns of successful businesspeople. Showing concern with the quality of one's work, being timely in payments, greeting others when passing on the street, and behaving politely and respectfully in general are important norms and routines facilitating the creation of a good reputation in Mwanza. It is also important that

a businessperson understands how to negotiate properly. Prices are always negotiable and there should be give-and-take from both sides before a price is finalized. Negotiation “scripts” such as these are particularly important since customers want to feel as if they were given a good price for any item purchased. Moreover, many customers will refuse to close a deal unless there is some compromise on the final price of an item or a service.⁶ Customer recommendations may depend heavily on these negotiations and in some cases may be more important than the quality or timeliness of the work.

There are three key conventions structuring reputation-based relations. First, reputations are often location specific, are constructed through shared experiences, or are ascribed to individuals based on their appearance, race, ethnicity, religion, or wealth. Reputations are not easily transferable outside of or into Mwanza and newcomers are particularly subject to this convention. In such cases, newcomers may spend extra time trying to make new connections around town in order to become better known within the business community. Second, and similarly, visibility in the community is vital for building a good reputation. People are especially wary of individuals who isolate themselves or may distrust those who are less communicative. There is a general belief that a person is trying to hide something or that they are cheating in business if they are less willing to greet others or to be seen in and around public places from time to time. Third, reputations are, in essence, forms of family capital that can be passed down through generations and built up through family ties. Old debts, outstanding favors, or unscrupulous behavior in the past may not be forgotten and obligations between families

⁶ A business manager in a large-scale firm complained about the pettiness of these negotiation processes and had struggled on numerous occasions with individuals who demanded price decreases despite his best efforts at bidding the lowest price possible for a job. To him, incessant negotiations were a waste of time and a relic of the past.

may continue for a number of generations. As was mentioned earlier, this is particularly true within the Asian business community where a good reputation is viewed as a long-term investment that can enable future business deals. Because of this, many Asian parents are concerned with building up the reputations of their children even before they formally enter into business activities in Mwanza.⁷

Bases of legitimacy in reputation-based relations are essential ingredients in the construction of an individual's reputation. Reputation builders, consciously or subconsciously, hope to be legitimated in relation to a number of personal characteristics including: work quality, technical capacity, general knowledge, competence socially, creditworthiness, material success, customer satisfaction, and honesty. Connections are also important and knowing powerful people from a variety of social circles is useful for expanding one's links to potential new sources of business. A highly respected businessperson would thus be one perceived as having or being associated with these attributes, abilities, and connections. It is a combination of these legitimating characteristics that gives an individual social power and improves his or her access to resources and business opportunities.

Trust creation in reputation relations is driven largely by micro-level interactions and shared business experiences. Successful transactions, deals, sales, and exchanges are thus critical for building up a solid reputation in the Mwanza business community. However, meso-level characteristics may influence reputation makers and ascribed characteristics – particularly race, religion, wealth, and family background – are

⁷ One Asian individual interviewed mentioned how his father had promoted him and his reputation while he was living in the United Kingdom. When he returned to Mwanza he was surprised to find out that many people, even those whom he could not remember, knew about his activities and successes while working and studying in London.

considerations used when sizing up a person's trustworthiness. In situations where an individual dislikes an ethnic group or race, trust may remain elusive regardless of the quality of the business relationship. A number of businesspeople made comments such as "you can't trust those people" when discussing whom they trust and do not trust in business. Sentiments such as these indicate that, for some individuals, ascriptions have a strong influence on their perception of an individual's reputation. This attitude makes shared experiences with groups ascribed as untrustworthy less likely or of superficial depth since there is little or no willingness to trust on the part of the individual using the stereotype.

Information Relations

Information exchange and distribution are vital for innovation and important for the security of firms. Information relations are used to gauge market fluctuations, obtain price and cost data, learn about new designs and ways of manufacturing, and to find out about government activities that may negatively influence businesses. Information relations are particularly important for responsive and creative forms of innovation. Specifically, these relations enable businesspeople to better adapt to market fluctuations and to develop or adopt new technologies, products, and production systems (Hodgson 1998). The market advantages achieved through information relations may be significant, particularly if one is effective at "feeling out" the competition's plans and strategies. In some cases, information is transmitted passively through imitative processes such as the use of foreign furniture catalogs or through the copying of other manufacturers' designs and methods (what small businesspeople in Mwanza call "window shopping"). Otherwise, information exchange is facilitated through social

relations with family, friends, and neighbors in Mwanza, through after-work chat sessions with competitors and peers, and through communication with newcomers to Mwanza or outsiders from other regions.

Figure 6-3 conceptualizes the information relations among manufacturers in Mwanza. In this logic, information seekers and information holders are the principal agents and their relationships are shaped and influenced by the norms, routines, and rules of information sharing. The conventions, bases of legitimacy, and mechanisms of trust related to information sharing are also identified in the conceptual model. Details on each component of the model are discussed below.

The cognitive dimensions of information relations relate to the key identities and perceived capacities of the individuals vying for and providing information. As is true with credit and reputation relations, some emphasis is placed on the perceived openness, friendliness, hospitality, and respectfulness of the information seeker. However, of primary importance in information relations is the reliability of the information holder and whether or not the information seeker should be trusted with information or a novel idea. Reliability emerges through shared experiences and with the development of a good reputation, particularly as these relate to the businessperson's technical skills and success. An information seeker's worthiness to receive information is either earned through shared experiences and trust building or is ascribed to those matching appropriate identities. Two key identities in Mwanza are the "businessman" and the "craftsman." These identities represent types of individuals with whom it is appropriate to share information and discuss business or technical ideas. Thus one's knowledge of business issues (the "businessman") or technical matters (the "craftsman") can be an important

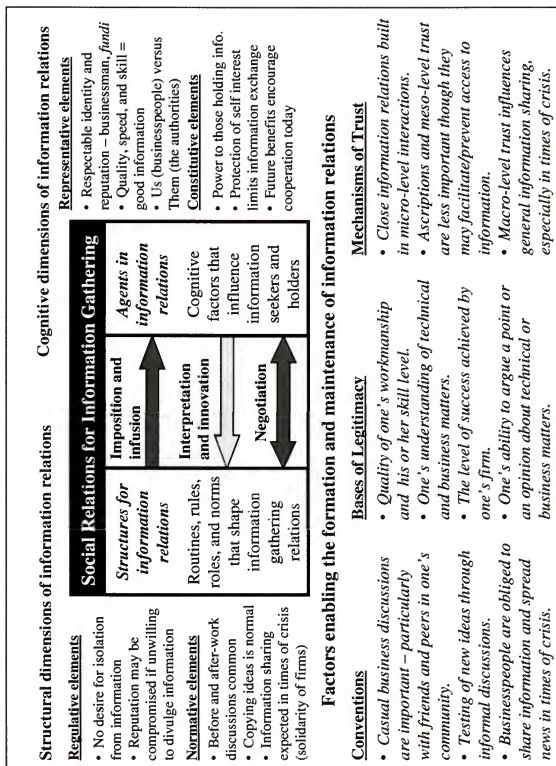


Figure 6-3: An Institutional Framework for Information Relations

factor driving his or her level of participation in information relations and networks since it influences the perceived accuracy of the information they are able to provide. Beyond their influence on information exchange, these identities are also important for symbolic solidarity in Mwanza's manufacturing community. Specifically, there is an "Us (business) versus Them (the government)" attitude among groups of businesspeople that acts as an important representation encouraging mutual assistance in times of need or crisis.

Constitutively, information holders are the agents of power in information relations although one can imagine situations where these individuals are unaware of the value of the information they possess. Agents who do understand the value of their information may wish to control how and to whom the information is released. Calculated self-interest undoubtedly plays an important role in determining how much information a businessperson is willing to share with others and information holders may be cautious about revealing any information that might enable them to achieve a more advantageous market position. Despite such circumstances, however, information seekers should not be viewed as powerless or passive recipients of what the information holder wants to release. Seekers may be able to structure conversations and interactions around the information they wish to obtain and may do so without the information holder's awareness. Casual conversations in informal settings are ideal for such exchanges and many respondents noted the value of these kinds of meetings in helping them gauge market fluctuations, identify opportunities, and test new business ideas. Beyond these types of strategic dialogue, agents in information relations are bound together with the understanding that "what goes around comes around." Thus the

potential for information in the future depends on whether or not it is provided today. This type of attitude is important for businesspeople hoping to protect their business interests when there is trouble or a crisis requiring mutual cooperation. Examples of such crises may include: surprise tax audits, municipal government crackdowns on small businesses, or natural disasters.

Information exchange relations are regulated by two factors: fear of isolation and fear of damaged reputation. From an information perspective, isolation is a risky strategy as there are few formal and/or relatively anonymous sources of information on industries (e.g., trade newsletters, web sites), markets, and the actions of government authorities able to effectively substitute for personal relationships. Moreover, as was stated earlier, reputations are significantly influenced by one's openness and visibility in Mwanza. Those individuals who have a reputation for being secretive may face social isolation and hence limited access to information. Many business owners, particularly Africans, spoke negatively about these kinds of people and stressed the importance of frequent communication with *wenzao* (their business friends).

Normatively, information sharing is structured around informal social relations, passive processes of imitation, and crisis-oriented warnings. Casual conversations among businesspeople before, during, and after the workday are especially important patterns of behavior. All levels of business people, from the smallest to the largest firms surveyed, rely on informal meetings that typically take place at workshops, suppliers, social clubs, cafes, religious functions, or bars. Passive imitation or copying typically entails direct observation of the activities of other firms where designs are memorized and costs surveyed. In some cases, an information seeker may go "undercover" and masquerade as

a potential customer in order to get as much information as is possible. Lastly, crisis-based warnings are those used mainly in times of government crackdowns and repression. These exchanges are especially helpful to newcomers who may be unaware of the ways in which the police and municipal government operate or may not know whom to bribe when and if the time comes.

Conventionally, businesspeople are obliged to share information with others, particularly in times of crisis. Casual meetings and discussions are most important for exchanging information and can act as critical communication channels in the community. Because the importance of these informal meetings is acknowledged by most businesspeople, participation in them is not taken lightly. In particular, it is understood that even casual conversations may be loaded with subtle messages about the plans of competitors and thus the information exchanged in them must be considered carefully. Consequently, information seekers may walk a fine line between giving away too much or too little when trying to evaluate the potential of a novel idea or new venture. Moreover, these experiences may prompt the development of similar ideas in others and thus facilitate the diffusion of an innovation in an industry.

Legitimacy in information relations comes mainly from the success of an individual's business venture, his or her knowledge of technical matters, and from one's ability to argue a point and state an opinion. Beyond business acumen and technical capacity, it is interesting to note that those individuals more competent rhetorically and socially appear to be respected as information holders. Social competence is particularly important and emerges from an individual's willingness to communicate across a wide

spectrum and his or her ability to maintain long-standing relationships with many individuals.

As is true with most business relations in Mwanza, micro-level or shared-experience based trust is critical for information relations, particularly in those instances when discussions on methods, products, and markets become involved and detailed. In such cases, long-time friends and business partners are invaluable sources for feedback that may be trusted extensively. Meso-level trust may also be important in influencing the types of information networks a businessperson accesses. In particular, participation in social clubs, civic organizations, and religious communities may offer key connections to information. The flow of information is facilitated by membership in such groups as there is an increase in the potential for social sanction should an individual member violate the terms of a business relationship. This fear of sanction increases accountability, enables the construction of trust, and may improve or limit the quality of the information channel.

Lastly, a key distinction between credit-based, reputation-building, and information-gathering relations comes with the role of macro-level trust. Macro-level trust, while of limited use in credit and reputation relations, is an important component of information relations, particularly those related to mutual assistance. There is a goodwill dimension to the exchange of information in crisis situations and macro-level trust is especially important for collective responses to government crackdowns, natural disasters, or economic downturns. Also important in driving macro-level trust are the feelings of goodwill that emerge from the solidarity of craftsmen and businessmen. The sense of belonging to one of these groups appears to be important in strengthening

relationships and in enhancing the abilities of businesspeople to respond or adapt to uncertainty in the business climate.

Overlapping Logics and Inter-Firm Relations in Mwanza: An Assessment of Hypothesis H1

The findings and conceptualizations detailed here demonstrate how multiple logics influence inter-firm and business relations in Mwanza. It is apparent that relations are used with multiple and competing objectives in mind, any one or combination of which can be applied in a given social circumstance. Three logics driving inter-firm relations in Mwanza – credit access, reputation building, and information gathering – have been identified and described, each of which has a unique construction. The numerous overlapping elements (e.g., issues related to politeness, accountability, shared experiences, honesty, respect, and success) in these relations demonstrate how logics intertwine and why it is difficult to establish clear, utilitarian, boundaries between them. Economic and non-economic considerations merge and power, as manifest in constitutive notions, has an important influence on an individual's capacity for action in a given social situation as it can enable (prevent) an individual to achieve (from achieving) the maximum benefits of a social interaction.

Figure 6-4 conceptualizes the overlapping logics observed among businesspeople in Mwanza. Credit, information, and reputation relations represent distinct objectives yet each influences the other to varying degrees depending on the circumstance. Credit relations are dependent in part on a good reputation and the accountability of credit seekers may be determined through information gathering. Moreover, credit seekers can identify potential credit givers through information relations. Reputation may be built in

part on timeliness in credit payments and the perceived quality of the information provided by an individual is more than likely a function of his or her reputation in the community and industry. Lastly, information relations overlap most clearly with credit and reputation relations through an individual's visibility and willingness to provide information to others. Both of these characteristics are important for reputation and reputation is, in turn, crucial for credit access.

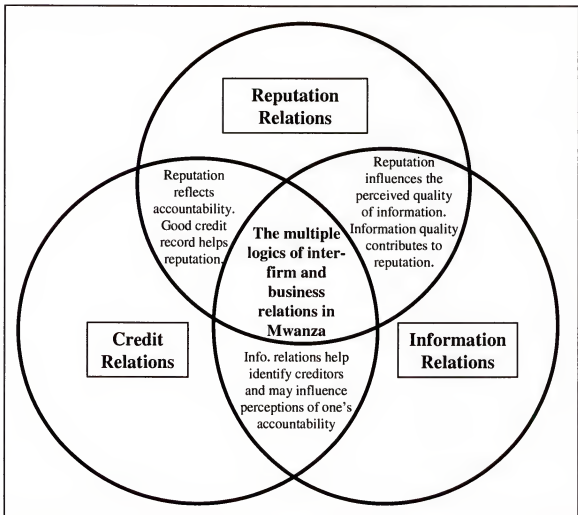


Figure 6-4: The Overlapping Logics of Business Relations in Mwanza

By deconstructing social relations in this manner, the limitations on transaction-cost or purely economic perspectives on networks become more apparent. Relations are driven by multiple objectives and competing needs, the costs of participation or non-participation may be difficult to qualify, and agency factors such as power, identity, and ego play an important role in the relationship-building process. Purely economic (i.e., with universal rationality) or transaction-cost perspectives on networks and institutions conceal these complexities in the single variable, cost, and network patterns or structural factors are at the center of most of these analyses. Although these approaches are useful in describing what effective networks look like and in outlining the paths that lead to their formation, they tell us little about what drives and enables individuals to participate in their creation and maintenance since individual motivations and attitudes are concealed in the cost variable. The findings here demonstrate that there are multiple reasons for social participation not accurately accounted for by universal notions of rationality or bounded rationality.

The findings also support hypothesis H1. H1 states the following:

In Mwanza, the conventions observed in business networks are more than cost reduction mechanisms, they provide important mechanisms for social interaction and are important for identity formation among businesspeople.

The findings described above demonstrate that conventions are important for identity formation, power creation, and solidarity building among entrepreneurs and businesspeople in Mwanza. Support for this hypothesis is most apparent in reputation and information relations. Credit relations, while undoubtedly overlapping with reputation and information relations, are primarily business interactions necessary for the survival and maintenance of firms. These relations fit the transaction cost model most

effectively, especially since the conventions shaping credit relations relate primarily to a firm or individual's financial accountability and to the costs related to an exchange of credit.

Information and reputation relations, however, appear to be as much about identities, power, appearance, and belonging as they are about transaction costs. Individuals use information relations not only to adapt to market shifts and to create distinct market advantages, but also to demonstrate their technical and business capacity and to improve their status in the community. One's technical capacity and business know-how emerges through discussions with peers about methods, costs, and designs and these exchanges may be driven as much by ego as they are by any desire for cost reductions. Moreover, information relations are associated with goodwill and openness and thus may relate to an individual's desire to be liked, to be popular, or to achieve a higher social standing in the community. In this manner, information relations may also contribute to reputation building.

Because reputation is about personal identity and social status, its economic value is not easy to calculate nor is it easy to specify its influence on the costs of conducting business. In essence, reputation is a positive personal attribute embodied in an individual's identity. Its value transcends short-term exchanges and purely calculative behavior as reputations are personal assets that facilitate the accrual of long-term benefits for businesspeople, their firms, and their families. Although a good reputation may help "grease the wheels" of today's business activities, its importance surpasses mere convenience and short-term financial gain and relates directly to an individual's identity and self-perception. These cognitive factors are, in turn, critical in driving an

individual's willingness to take risks and in influencing one's perception of his or her technical and financial capabilities.

The overlapping nature of these logics is an important consideration when evaluating the role of inter-firm and entrepreneurial networks in industrial development. The social structures emerging from the logics observed in Mwanza enable identities in the business community to be created, capacities to be enhanced, meanings to be established, and business mechanisms to be managed. Agents are crucial for these processes and their actions reflect not only the social structures made available to them but also their willingness and capacity to innovate and interpret these structures. By applying a multiple logics framework, we can better understand the numerous motivations behind social activities and the reasons why businesspeople utilize networks and inter-firm relations to varying degrees. Moreover, this approach demonstrates the problems inherent in universalistic approaches to the creation of networks and thus highlights some of the limitations on NGO and donor sponsored "boilerplate" initiatives hoping to create social capital among small and medium-scale firms. Examples of such initiatives include: RoSCAs (rotating savings and credit associations), village banks (e.g., the Grameen program), and self-help groups and associations.

Connecting Relational Logics to the Typology

The preceding discussion focused on the general types of relations observed among the firms surveyed in this study. In terms of the typology – of minimalists, pragmatists, and maximalists – there are a few minor generalizations that can be made regarding the use of credit, reputation, and information relations. Most apparent are the relational differences between the minimalists and the maximalists. Pragmatists are

harder to generalize about since the distinctions between them and the other groups are less obvious.

Minimalists appear most concerned with credit access and reputation building. Credit is vital as a means of maintaining production while reputation building is viewed as a key marketing strategy or a means for building a customer base. Active information relations appear to be important only in times of crisis and the passive copying of others' work is a popular strategy for developing new products. Beyond these uses, social relations are not of great importance to minimalists, most of whom are struggling to survive in the short term.

Pragmatists are more connected than the minimalists and use reputation-building and information relations more extensively. However, pragmatists are wary of overextending themselves and prefer to use relationships in clearly beneficial ways. In particular, reputation and information relationships are most useful for finding potential financial backers and for gaining short-term competitive advantages in local markets. For pragmatists already well connected to a stable source of capital, credit relations appear to be most important and are maintained primarily with input suppliers or product distributors.

Maximalists rely on a wider range of social relations and, in particular, are more concerned with information gathering than minimalists or pragmatists. Reputation building is also important and, as is true for the pragmatists, reputation relations are used to build links to potential investors. In general, the major difference between maximalists and the other groups is that maximalists appear to use relations with the intention of maintaining flexibility in the enterprise. Loose connections to a diversity of people and

communities are especially important as they enable maximalists to effectively adapt to market changes and to identify new business opportunities ahead of the competition. Information gathering is facilitated through these relationships and external links appear particularly important for production and innovation, especially in those instances where the firm is a subsidiary of a company based outside Mwanza.

Summary

This chapter has presented detailed findings about the social relations observed among businesspeople in Mwanza. Its purpose was to describe the social context of business relations and to conceptually model the agency and structural components of the key relations between firms. In general, it was shown that most businesspeople in Mwanza view connections to other firms as important and that social relations are utilized for three primary reasons: to access credit, to build reputation, and to gather information. These relational categories correspond well to Ettlinger's (2001) concept of "multiple logics" and it is found to be quite useful for exploring the processes behind social network creation and maintenance in Mwanza's manufacturing sector.

Using the conceptual framework presented in Chapter 2, agency elements (representative and constitutive factors) and structural elements (regulative and normative factors) were detailed for each social relation. Each type of relation was then described in terms of the key conventions, bases of legitimacy, and mechanisms of trust shaping it. The findings demonstrate that social relations are more than simply utilitarian means through which transaction costs are reduced and profits increased. Instead, they contribute to individual identities and capacities and are ultimately crucial in determining the level and type of risk a businessperson perceives as being manageable. In examining

relations through this framework, it becomes apparent that universalities about firm behavior in relation to networks are somewhat problematic. The findings also qualitatively support hypothesis H1 by demonstrating that the conventions observed in business relations transcend the purely economic by helping businesspeople create identities, construct meanings, and establish social power and status in their communities.

In Chapter 7, the discussion shifts from this descriptive analysis into a quantitative assessment of the relationships between the dependent and independent variables. Specifically, empirical findings are presented which relate the social characteristics of the respondents (the independent variables of trust, external links, and network dependence) to the levels of innovation and performance achieved in their firms. Hypotheses H2 through H7 are formally tested and particular relationships among the variables are discussed in detail. These findings further demonstrate the difficulties inherent in trying to generalize about behavior patterns in business networks and relations without some understanding of the cognitive factors influencing the decision-making processes of economic agents.

CHAPTER 7

THE INFLUENCE OF NETWORK STRUCTURES AND TRUSTING AGENTS ON PERFORMANCE AND INNOVATION IN MWANZA MANUFACTURING FIRMS

Introduction

As was demonstrated in Chapter 6, the social relations among businesspeople in Mwanza may have multiple objectives and can lead to several positive or negative outcomes for firms. Information can be obtained, credit accessed, or a reputation developed through social relations and each of these objectives can, in turn, contribute to the other. Alternatively, one's failure to abide by the rules and expectations in these relations can lead to poor reputation and can limit a businessperson's access to credit and information. Despite its holistic nature, however, the multiple logics framework remains largely conceptual and of limited empirical use to practitioners searching for more clear-cut connections between social relations and entrepreneurship.

This chapter addresses this concern by statistically testing the relationships between structural and agency-driven attributes of business relations and the levels of innovation and performance observed in firms. Structurally, network dependence and external link scores are correlated against innovation and performance levels in firms. On the agency side, scores for the three trust mechanisms – micro, meso, and macro-level – are correlated to innovation and performance scores. In both cases, innovations are assessed at both the responsive and creative level. By categorizing innovations in this manner, it is possible to analyze how structural and agency factors contribute to both the

adaptability and inventiveness of manufacturing firms in Mwanza. All correlations are computed at the overall sample level and within the separate typological categories.

These correlations are then applied to empirically test hypotheses H2 through H7. The results are mixed for hypotheses H2 through H5, which focus on the structural side of social relations. Hypothesis H2, asserting that there is a positive relationship between network dependence and performance, is not supported for the overall sample or within any of the typological categories. Hypothesis H3, purporting that there is a positive relationship between network dependence and innovation, is confirmed for the overall sample but there are inconsistencies within the typological groups. Hypothesis H4, asserting that there is a positive correlation between external link scores and performance, is supported for the overall sample and within the maximalist subcategory. Hypothesis H5, asserting that there is a positive correlation between external link scores and innovation, is supported for the overall sample for both total and creative innovation levels. However, the relationship is not supported in the typological subcategories or for responsive innovations in the overall sample. Moreover, within the pragmatist category, external links exhibit a significantly negative correlation to responsive forms of innovation.

Hypotheses H6 and H7 test the role of agency in networks. Hypothesis H6, contending that there are positive correlations between a businessperson's level and intensity of trust and the performance in his or her firm, demonstrated mixed results. The use of micro-level trust mechanisms correlates positively with performance for the overall sample and within the minimalist subcategory. However, meso and macro-level trust demonstrate no positive and significant correlations to performance overall or within

any typological categories. Hypothesis H7, supporting a positive relationship between a businessperson's level and intensity of trust and the levels of innovation in his or her firm, reveals more significant findings. Most significantly, it is found that total and creative levels of innovation correlate positively with micro-level and macro-level trust mechanisms in the overall sample. Within the typological groups significant relationships are also identified for H7. Specifically, it is found that total innovations among the minimalists correlate positively to their use of meso-level trust mechanisms, that innovation among the pragmatists does not positively relate to any type of trust mechanism, and that maximalist levels of innovation correlate positively to both macro-level trust and micro-level trust.

Table 7-1 summarizes the correlation scores (r values) for all of the variables as they relate to the overall sample. In the sections that follow, scores are broken down into typological groups and tables are used to summarize the correlation results. The discussion in the text highlights the major outcomes of each correlation test and assesses their implications for hypotheses H2 through H7. The chapter concludes with a brief summary of the findings and a few comments regarding their importance.

The Influence of Structural Factors on Innovation and Performance – Hypotheses Tests H2 through H5

The structural role of networks for innovation and performance was assessed along two dimensions. First, the density of each respondent's social relations was evaluated using the network dependence score. Second, the spatial extensiveness of a respondent's networks was determined using the external link score. Correlation

Table 7-1: Summary of the Correlations for the Overall Sample

r Values for Correlations between Variables

Variable	Performance Score	Total Number of Innovations	Number of Responsive Innovations	Number of Creative Innovations	Network Dependence Score (density)	External Link Score (spatial extensiveness)	Micro-Level Trust Score	Meso-Level Trust Score	Macro-Level Trust Score
Performance Score	1								
Total Number of Innovations	0.3291**	1							
Number of Responsive Innovations	0.2492	0.4339**	1						
Number of Creative Innovations	0.5105**	0.8457**	0.1140 (-)	1					
Network Dependence Score (density)	0.2015	0.5181**	0.2731* (-)	0.4096**	1				
External Link Score (spatial extensiveness)	0.3608**	0.4418**	0.0007 (-)	0.4876**	0.6747**	1			
Micro-Level Trust Score	0.3388**	0.2851*	0.0906	0.2608*	0.2711*	0.0283	1		
Meso-Level Trust Score	0.1304 (-)	0.1386 (-)	0.0346 (-)	0.1323 (-)	0.2093 (-)	0.1118 (-)	0.0300	1	
Macro-Level Trust Score	0.2000	0.2263	0.3150**	0.0632	0.4496**	0.2579	0.3005*	0.1221 (-)	1

Unless specified, correlations between the variables are positive.

** = Significance at 0.05

* = Significance at 0.10

coefficients, expressed as r values, were calculated and their significance tested to determine the strength of the relationships between the variables. It must be stressed that the significance of the correlation tests within the typological categories (minimalist, pragmatist, maximalist) may be limited by the small sizes of each group. Because of this, caution is taken when drawing conclusions about the findings within the categories.

Correlations between Network Density Scores and the Variables

Network dependence, as proxy for the density of each respondent's social relations, is an important variable relating positively to a businessperson's innovativeness but not necessarily contributing to the success of his or her firm. Table 7-2 summarizes the results for the correlations between network dependence and the other variables surveyed. The findings are particularly revealing for the sample as a whole and less so in relation to the typological subgroups. For the overall sample, network dependence correlates positively to the levels of innovation (total, creative, and responsive) in an individual's firm, to his or her external link score, to his or her reliance on micro-level trust mechanisms, and to his or her use of macro-level trust mechanisms. Performance levels do not correlate significantly to network density scores although there may be indirect relationships to performance levels due to increases in the number of innovations.

The significance of the correlations between network dependency and creative, responsive, and total levels of innovation supports the contention that an increased reliance on social relations and networks corresponds to improvements in technology, product diversity, and production systems within firms. The finding also supports the

Table 7-2: Correlations between the Network Dependence (Density) Score and the Variables

Variable	r Values for Correlations to Network Dependence Scores			
	r Value for Minimalist Correlation with Network Score (n=13)	r Value for Pragmatist Correlation with Network Score (n=12)	r Value for Maximalist Correlation with Network Score (n=16)	r Value for Total Sample Correlation with Network Score (n=41)
Performance Score	0.1304 (-)	0.0933 (-)	0.1565	0.2015
Total Number of Innovations	0.1764 (-)	0.5911**	0.2737	0.5181**
Number of Responsive Innovations	0.5193* (-)	0.3137	0.2020	0.2731*
Number of Creative Innovations	0.1863	0.2317	0.1269	0.4096**
External Link Score	0.3814 (-)	0.2659 (-)	0.5612**	0.6747**
Micro-Level Trust Score	0.3651	0.0866	0.0671 (-)	0.2711*
Meso-Level Trust Score	0.0458 (-)	0.4280 (-)	0.1688	0.2093 (-)
Macro-Level Trust Score	0.3538	0.2993 (-)	0.2504	0.4496**

Unless specified, correlations between the variables are positive.

** = Significance at 0.05

* = Significance at 0.10

assertion that networks are important for knowledge creation and that they can improve a firm's capacity for handling uncertainty or change. Moreover, the correlation supports the argument that social capital (as manifest in networks of businesspeople) is important for innovation. However, a greater dependence on networks in Mwanza does not guarantee better performance. Other factors, outside the control of many agents, may

limit profitability and include such issues as limited market demand and increased input costs.

Network density also correlated positively and significantly to a respondent's external link score. This finding indicates that business networks in Mwanza become more spatially extended as local interconnectedness increases. This result is useful in demonstrating that extra-community relationships may increase in importance as networks become more highly developed locally. The particular relationships between external links, performance, and innovation are detailed in the section that follows.

In terms of trust, network dependence correlates positively and significantly to a businessperson's use of micro-level and macro-level trust mechanisms. Macro-level trust's relationship to network dependence may be indicative of a gradual formalization of business activities as local connectedness increases. Increased openness (as is evident in higher macro-level trust scores) may reflect an increase in confidence socially that emerges through greater use of and dependence on social relations for business. Improved social confidence, in turn, may lead to an increase in a businessperson's willingness to build relations with outsiders or with formal institutions such as government agencies or NGOs.

Micro-level trust also correlates positively and significantly to network dependence. This finding is important in demonstrating the relationship between one's use of competence-based or experiential trust and his or her reliance on networks. Maintaining consistent connections to known persons is an important means of ensuring accountability and reducing uncertainty, especially in Mwanza where most formal

institutions are unable to do so. Once trusted partners are identified and legitimated, networks maintain and strengthen these connections.

For the typological categories, the significance of the correlations between network dependence (or density) and the other variables becomes limited. Within the minimalist category, network dependence exhibits only a negative relationship to the number of responsive innovations. For the minimalists, dense networks appear to be of little importance and might even decrease a businessperson's ability to respond to uncertainty. Instead, minimalists appear to prefer loose ties and weak social connections as these require the least effort to maintain and are the least risky to develop. This lack of network reliance and the weakness of minimalist social relations may be important factors slowing the transition of these firms into more formalized and innovative operations.

The pragmatists demonstrate a much different relationship for networks and innovation. Within the pragmatist group, network dependence correlates positively and significantly to the total number of innovations. In contrast to the minimalists, pragmatist firms appear to innovate in parallel with an increasing reliance on networks and social relations. Pragmatists are found to be the group of firms most focused on network building as a business development strategy. Thus distinctions between pragmatist and minimalist firms may offer clues as to what socially limits the ability of small-scale firms (as minimalists) to move beyond informal management structures and subsistence-level orientations.

For the maximalists, the only significant correlation emerges between the network dependence score and the external link score. As is the case for the sample as a whole,

the use of or reliance on networks by the maximalists increases with an increasing level of connectedness outside of the Mwanza context. This finding may reflect a situation where the marginal returns on local social relations diminish beyond a certain level of connectedness. Businesspeople in Mwanza may subconsciously or consciously envision an optimal level of interconnectedness or network density beyond which external or outside links become more valuable for innovation. Thus maximalists, having already achieved dense local networks through their openness, may prefer to focus more attention on making outside connections in order to expand their businesses or improve their production systems.

Testing hypotheses H2 and H3

In applying these findings to Hypotheses H2 and H3, the results are mixed. Hypothesis H2 proposes that there is a significant and positive relationship between performance and network dependence or density. Specifically, H2 states:

In Mwanza, enterprise performance is **positively correlated** to a businessperson's level of dependence on networks.

The findings here do not support this contention and it appears that one's use of or dependence on networks may be less important for performance than factors such as general market conditions, the firm's level of infrastructure and technology, the education level of the firm owner, or the firm's access to financing. This is not to say that networks do not have an influence, only that no significant relationships could be identified in this study. Moreover, as is demonstrated further on, there are other social factors influencing performance such as external links and an entrepreneur's use of micro-level trust mechanisms.

The findings for H3 do support the contention that networks are important for innovation. Hypothesis H3 states the following:

The number of innovations developed by a businessperson in Mwanza is **positively correlated** to his or her level of dependence on networks.

For the overall sample, there is a strong positive relationship between the levels of innovation (total, responsive, and creative) and the businessperson's use of or reliance on business networks. Within the typological groups, the results are mixed as there is no relationship for the maximalists, a strong positive relationship for the pragmatists, and a strong negative relationship for the minimalists. Thus it appears that an increasing use of networks may be more important for innovation in certain groups – namely the pragmatists – and of little or no use to others – namely the minimalists.

This finding reflects key differences in the social behavior of the typological groups. The minimalists, largely self-sufficient, weakly innovative, and having little interest in long-term planning, appear to use networks sparingly at best and with only their immediate needs in mind. Expanding one's networks beyond this narrow range may not be efficient or profitable, especially since most innovations are developed through the passive copying of others. Alternatively, pragmatists benefit significantly by building up their business relations and the most innovative firms in the pragmatist category have the densest networks. Thus pragmatists may reap the greatest rewards from their social investment while minimalists gain little. As for the maximalists, it appears that a point of diminishing returns is reached beyond which the benefits of social interaction decline within the group and new connections or relations contribute little to innovation levels. Thus the innovation-related benefits of network participation peak with the maximalists

and within the group there is no significant and positive correlation relating network dependence to innovation levels.

Correlations between External Link Scores and the Variables

The spatial or geographic extent of a businessperson's business relations also provides insight into the structural role of networks and social relations in industrial development. Table 7-3 summarizes the correlation statistics between the respondents' external link scores and the other variables in the study. The key findings are that external link scores vary with performance levels but that they do not necessarily correspond to higher levels of trust in business. For the overall sample, external links correlate positively to the level of performance, the number of innovations (creative and total), and to network dependence or density. Alternatively, neither the trust variables nor the businessperson's level of responsive innovation correlate significantly to external links. Within the separate typology categories, various trends emerge and the pragmatists, in particular, reveal much about the relationship between spatial extensiveness and trust.

For the overall sample, the relationship between network dependence and external links was mentioned earlier and thought to be indicative of a locally well-connected businessperson's desire or need to look outward for new sources of ideas and information. In terms of innovation, external link scores correlate positively and significantly to the total number of innovations and the number of creative innovations. However, a businessperson's level of responsive innovation is unrelated to external links and appears to be more dependent on local connectedness. This is logical considering that in a non-export situation one responds mainly to shifts in local market conditions.

Conversely, however, creative or more novel forms of innovation may benefit from a businessperson having access to information and ideas not available locally. Thus external links are important mechanisms for creative innovation since they provide pathways for the transmission of this information into Mwanza.

External links correlate significantly and positively to performance scores for the entire sample. This is an important finding and is indicative of the advantages that outsiders, or those well connected to the outside, may have in comparison to locally dependent firms. Whereas overall innovation is influenced both by networks and external links, performance may depend more heavily on a businessperson's connections to key individuals residing outside the local context. In Mwanza, many of these external links are formalized connections stemming from corporate structures, family or kinship ties, or ethnic and/or religious communities. What seems most important in these links is their connection to sources of capital and information otherwise unavailable to local businesspeople.

Within the minimalist category, there are no significant correlations between external links and the other variables. This finding is not surprising considering that most minimalists are either very poor or very poorly connected outside of their immediate work and living areas. Most have a few Tanzanian links outside the Mwanza region but these are largely limited to the rural areas where the businessperson was born and raised. Other external links are generally not sustained due to the costs and efforts associated with long-distance communication.

The pragmatist group, however, demonstrates interesting trends for the external link variable. External link scores for the pragmatists correlate negatively to responsive

Table 7-3: Correlations between the External Link (Spatial Extensiveness) Score and the Variables

Variable	r Values for Correlations to External Link Scores			
	r Value for Minimalist Correlation with Ext. Link Score (n=13)	r Value for Pragmatist Correlation with Ext. Link Score (n=12)	r Value for Maximalist Correlation with Ext. Link Score (n=16)	r Value for Total Sample Correlation with Ext. Link Score (n=41)
Performance Score	0.3413 (-)	0.1828	0.4301*	0.3608**
Total Number of Innovations	0.0265 (-)	0.03873	0.1510	0.4418**
Number of Responsive Innovations	0.3023	0.5135* (-)	0.3130 (-)	0.0007 (-)
Number of Creative Innovations	0.2731 (-)	0.4064	0.3203	0.4876**
Network Score	0.3814 (-)	0.2659 (-)	0.5612**	0.6747**
Micro-Level Trust Score	0.1817 (-)	0.6193** (-)	0.2149 (-)	0.0283
Meso-Level Trust Score	0.3164	0.5268*	0.2510	0.1118 (-)
Macro-Level Trust Score	0.1685 (-)	0.4310 (-)	0.1367 (-)	0.2579

Unless specified, correlations between the variables are positive.

** = Significance at 0.05

* = Significance at 0.10

innovation and micro-level trust scores and positively to the use of meso-level trust mechanisms. The relationship between external links and responsive innovation for the pragmatists may relate to the trade-off between being better connected locally, and thus more responsive to local market changes, and being better connected externally, and thus

being more independent (creative) in the types of innovation achieved. This finding reflects the presence of several foreign-owned or managed firms in the pragmatist category. These firms are large-scale operations manufacturing low-quality consumer and hardware goods (e.g., foam mattresses or steel rods) for local distribution. Key business relations for these firms are limited to management teams, corporate headquarters, or raw material suppliers typically located outside of Mwanza. These external links are critical for input acquisition, capital access, and planning while local relations are of little importance beyond sales and distribution.

In terms of trust, it is found that an increased reliance on meso-level mechanisms corresponds to an increase in external links for the pragmatists. Once again, this relationship appears most significant for those foreign-owned or managed pragmatist operations. Most of these respondents maintain close ties within ethnic or religious communities and this high level of intracommunity bonding limits the need for extracommunity interactions. In effect, these firms isolate themselves from the wider business community and may rely on ascriptions (e.g., based on caste, religious community, or home region) as powerful and efficient tools for identifying trustworthy business partners.

Within the maximalist group, there are positive and significant correlations between external links, network dependence, and performance. As was noted earlier, network dependence increases in parallel with external links and external relations appear to be important for improving the overall quality of maximalist networks. As was found with the overall sample, external links among the maximalists correlate positively to performance. Trust mechanisms do not significantly correlate to external links for the

maximalists thus suggesting that the spatial extensiveness of a maximalist's network is not related to the types of trust mechanisms he or she utilizes. Instead, it appears that maximalists, like the pragmatists, acquire external links mainly through family connections, corporate structures, or ethnic and/or religious communities and not through repeated transactions or shared experiences. These formalized links, as was found for the pragmatists, may reduce the need for trust building in situations where distance limits the probability of regular face-to-face contact.

Testing hypotheses H4 and H5

The results for hypotheses H4 and H5 are interesting and indicate that external links are important for performance and innovation in Mwanza's manufacturing sector.

Hypothesis H4 states the following:

In Mwanza, a businessperson's external link score **is positively correlated** to the performance of his or her enterprise.

The findings above support this hypothesis in the case of the maximalists and the overall sample as the correlation data show a significant and positive correlation between performance and external links. This finding more than likely emerges from the relationship between a firm's external links and its level of capital and infrastructure. Firms having more resources typically have owners who have traveled extensively in Tanzania and, in many cases, have lived or traveled abroad. Moreover, the largest firms tend to be foreign owned or have owners who maintain extensive connections outside the Lake Victoria region. Conversely, it appears that a lack of external connections limits other firms' (e.g., many of the minimalists and pragmatists) abilities to access resources, information, and financing.

The results for Hypothesis H5 are similar and reflect similar circumstances as those for H4. H5 states:

In Mwanza, a businessperson's external link score **is positively correlated** to the number of innovations developed by the businessperson.

The correlation is significant and positive for creative and total innovations for the overall sample. H5 is supported for the overall sample and within these innovation categories but is not supported in relation to responsive forms of innovation. Within the subcategories, support for H5 is nonexistent and, in fact, the pragmatists demonstrate a significantly negative relationship between their external links and responsive forms of innovation.

As was true with hypothesis H4, the findings for the overall sample may reflect a positive relationship between innovativeness and one's access to outside ideas and greater levels of capital. Creative innovations, in particular, may benefit from the novel bits of information and larger levels of financing available to extensively connected firms. Responsiveness, however, appears more a function of local connectedness, particularly since most manufacturers compete only at the local and regional level. Thus pragmatists who depend on foreign sources of capital may be less attuned to local market shifts and more concerned about how their external benefactors perceive the firm's performance.

The Influence of Agency on Innovation and Performance in Firms – Hypotheses Tests H6 and H7

Beyond structural characteristics, agency factors also influence a businessperson's willingness to engage in network relations. By exploring the relationships between trust mechanisms, innovation, and performance it is possible to better understand the role of

agency in entrepreneurship and industrialization. Trust mechanisms are critical not only because they bind individuals together within networks but also because they enable agents to build connections or “bridges” to other communities. Micro-level or experiential trust is an important mechanism for bonding while macro-level trust is important for bridging. Meso-level or ascribed trust is viewed simply as a means through which businesspeople reduce uncertainty and streamline decision-making processes.

The discussion that follows summarizes the relationships between trust and innovation and performance scores in respondents’ firms. Correlations between the individual trust variables and between trust mechanisms and the other independent variables (i.e., network dependence and external links) are excluded from this discussion. This exclusion is justified for two reasons. First, the overlapping nature of trust mechanisms makes correlations between them somewhat specious. Second, the relationships between trust mechanisms and the structural variables were discussed in the preceding section.

After the presentation of the correlations, each section closes with a brief summary relating the statistical findings to hypotheses H6 and H7. H6 relates levels and mechanisms of trust to performance and states:

In Mwanza, an enterprise’s performance **is positively correlated** to the owner or manager’s use of a trust mechanism. Each trust mechanism is tested individually, micro-level trust in hypothesis H6.1, meso-level trust in H6.2, and macro-level trust in H6.3.

H7 relates levels and mechanisms of trust to innovation and states:

In Mwanza, the number of innovations observed in an enterprise **is positively correlated** to the owner or manager’s use of a trust mechanism. Each trust mechanism is tested individually, micro-level trust in hypothesis H7.1, meso-level trust in H7.2, and macro-level trust in H7.3.

Each of these hypotheses is evaluated within the respective trust mechanism sections and general conclusions are presented therein.

Micro-Level Trust, Performance, and Innovation – Testing Hypotheses H6.1 and H7.1

Micro-level trust develops through shared experiences, one-on-one interactions between individuals, or when an individual's reputation (built through one-on-one experiences with others) facilitates the creation of trust in a relationship. It results when a relationship leads to one or a number of positive outcomes and to the creation of a bond between two individuals. Positive outcomes may include shared success, mutual respect, friendship, knowledge, common understanding, or observed competence. When micro-level trust is established, information and ideas flow more easily between agents at a level concomitant with the trust existing in the relationship.

The results of the correlation tests between micro-level trust and the other variables are summarized in Table 7-4. The results show that there are significant and positive relationships between a businessperson's reliance on micro-level trust mechanisms and the level of innovation and performance achieved in his or her firm. The findings also demonstrate that there is a positive and significant relationship between levels of micro-level trust and the number of innovations in a firm; particularly for the maximalists. This result is interesting in demonstrating the influence of longer-term and deeper relationships on the innovation process.

Micro-level trust scores correlate positively and significantly to performance levels for the overall sample and within the minimalist subcategory. This finding demonstrates that performance levels improve when businesspersons rely more heavily

on shared experiences and observed competences to determine who can be trusted. Moreover, relations that are built together gradually and through continued success are important factors influencing profitability. This is particularly true for minimalist firms. The building of bonding relations – mainly as dyadic connections to key individuals such as suppliers – appears to be the critical social factor that influences the profitability of minimalist firms. From an evolutionary perspective, bonding relations, built up through micro-level trust mechanisms, may represent an important first step for small firms hoping to improve performance through the development of business networks.

Table 7-4: Correlations between Micro-Level Trust Scores and the Variables

Variable	r Values for Correlations to Micro-Level Trust Scores			
	r Value for Minimalist Correlation with Micro-Level Trust Score (n=13)	r Value for Pragmatist Correlation with Micro-Level Trust Score (n=12)	r Value for Maximalist Correlation to Micro-Level Trust Score (n=16)	r Value for Total Sample Correlation to Micro-Level Trust Score (n=41)
Performance Score	0.4986*	0.1775	0.2437	0.3388**
Total Number of Innovations	0.0141	0.1217	0.3568	0.2851*
Number of Responsive Innovations	0.0812	0.1543	0.1786 (-)	0.0906
Number of Creative Innovations	0.0480 (-)	0.2492 (-)	0.4261*	0.2608*
Network Dependence Score	0.3651	0.0866	0.0671 (-)	0.2711*
External Link Score	0.1817 (-)	0.6193** (-)	0.2149 (-)	0.0283

Unless specified, correlations between the variables are positive.

** = Significance at 0.05

* = Significance at 0.10

The findings support hypothesis H6.1 for the overall sample and within the minimalist typological group. Micro-level trust, as evidenced in the close personalized relationships that may develop through its use, does appear to help manufacturing firms in Mwanza perform better. As for innovation and hypothesis H7.1, the findings support the contention that micro-level trust mechanisms are useful for innovation. Correlations are significant for total innovations in the overall sample, creative innovations in the overall sample, and creative innovations for the maximalists. Interestingly, micro-level trust scores do not demonstrate a significant relationship to responsive levels of innovation nor are there any significant correlations within any other typological groups outside the maximalists. The importance of micro-level trust for creative innovation is detailed further in Chapter 8.

Meso-Level Trust, Performance, and Innovation – Testing Hypotheses H6.2 and H7.2

Meso-level mechanisms of trust are manifest in relations developed or strengthened when an individual or object is identified as having characteristics ascribed to trustworthiness. Typical associations or ascriptions relate to: wealth, ethnicity, education, race, religion, location of business, size of the business, home region, neighborhood of residence, family ties, and connections to prominent persons inside or outside the community. Meso-level trust appears to be most important early on in business relationships as it shapes initial interactions and influences first impressions. These impressions, and the stereotypes associated with ascriptions, remain important until micro-level mechanisms of trust can evolve (Schmitz 1999). In other cases,

ascriptions are used more extensively and may be widely associated with groups of people who can or cannot be trusted.

Table 7-5 summarizes the correlations between meso-level trust scores and the other variables surveyed. For the sample as a whole, meso-level trust has no significant relationship to innovation. However, there is a positive correlation between meso-level trust and responsive innovation within the minimalist category. As for performance, meso-level trust does not correlate significantly to other variables for the sample as a

Table 7-5: Correlations between Meso-Level Trust Scores and the Variables

Variable	r Values for Correlations to Meso-Level Trust Scores			
	r Value for Minimalist Correlation with Meso-Level Trust Score (n=13)	r Value for Pragmatist Correlation with Meso-Level Trust Score (n=12)	r Value for Maximalist Correlation with Meso-Level Trust Score (n=16)	r Value for Total Sample Correlation with Meso-Level Trust Score (n=41)
Performance Score	0.0500 (-)	0.0015	0.2812 (-)	0.1304 (-)
Total Number of Innovations	0.2375	0.3076 (-)	0.0911	0.1386 (-)
Number of Responsive Innovations	0.5053*	0.4080 (-)	0.1288	0.03464 (-)
Number of Creative Innovations	0.0970 (-)	0.0686 (-)	0.0059 (-)	0.1323 (-)
Network Dependence Score	0.0458 (-)	0.4280 (-)	0.1688	0.2093 (-)
External Link Score	0.3164	0.5268*	0.2510 (-)	0.1118 (-)

Unless specified, correlations between the variables are positive.

** = Significance at 0.05

* = Significance at 0.10

whole or within any of the typological subcategories.

In terms of hypotheses H6.2 and H7.2, the results are of little significance. There is no relationship of any significance between performance levels and a businessperson's use of meso-level trust mechanisms. Hypothesis H6.2 is not supported and meso-level trust is not viewed as an important influence on the success of an enterprise. The usefulness of ascriptions in business relations may instead derive from their application in simplifying the decision-making processes of businesspeople. In other words, meso-level trust mechanisms can make choices (e.g., who to do business with or who to give credit to) quick and easy, but they do not necessarily make these choices more beneficial for the firm.

In terms of innovation, the results are similarly weak with the exception of a positive relationship between responsive innovation and meso-level trust within the minimalist group. This relationship supports hypothesis H7.2 for the minimalists and appears to relate to the role of imitation for innovation by these firms. The particulars of this relationship are detailed in Chapter 8. Otherwise, tests of H7.2 fail for the remainder of the sample and meso-level trust is found to be a relatively insignificant variable in the innovation process.

Macro-Level Trust, Performance, and Innovation – Testing Hypotheses H6.3 and H7.3

Macro-level or goodwill trust occurs primarily for two reasons. First, there may be a sense of goodwill between people stemming from a belief in the integrity or goodness of human nature. Second, macro-level trust may result from a feeling that there is accountability in society and that should a trusted subject violate the terms of an

agreement, there are formal or informal mechanisms to protect an agent's interests. Macro-level trust is essentially driven by an agent's willingness to take a risk with a stranger or a poorly known person. Prior experiences or ascribed characteristics may influence this willingness but higher-order beliefs are critical for initiating the relationship. As with other forms of trust, there is an exchange of a resource – be it information, credit, or another form of assistance – with a perceived benefit for both the agent and the subject of the trust. The difference here is that the agent's benefit may not be realized at all or for some time to come.

The correlations between macro-level trust and innovation are summarized in Table 7-6. The findings are interesting for both the overall sample and within the typology of firms. First, for the sample as a whole, macro-level trust has a significant and positive relationship to responsive innovation. Second, there is a strong positive correlation between responsive innovation and macro-level trust for the maximalists. Third, for the pragmatists, there is a strong negative correlation between macro-level trust and the total number of innovations and the number of creative innovations. Lastly, there are no significant correlations between macro-level trust and performance for the overall sample or within any of the subcategories.

What is most apparent in these findings is the relationship between macro-level trust mechanisms and a firm's ability to responsively innovate. It appears that businesspeople benefit by being willing and able to build connections to individuals outside the realm of their daily business activities. These types of connections bring diverse sources of information into the firm and allow market shifts and industry changes to be detected earlier. This information, in turn, enables the businessperson to develop an

appropriate response in a more timely fashion and this is reflected in higher responsive innovation scores. However, there is an exception to this finding. In the case of the pragmatists, less macro-level trust means more creative innovation and it appears that some pragmatists use narrow networks (without bridges to other communities) to create market advantages. As for performance, macro-level trust is an insignificant factor directly as the results show no correlations between success and a businessperson's use of bridging strategies.

Table 7-6: Correlations between Macro-Level Trust Scores and the Variables
r Values for Correlations to Macro-Level Trust Scores

Variable	r Value for Minimalist Correlation with Macro-Level Trust Score (n=13)	r Value for Pragmatist Correlation with Macro-Level Trust Score (n=12)	r Value for Maximalist Correlation with Macro-Level Trust Score (n=16)	r Value for Total Sample Correlation with Macro-Level Trust Score (n=41)
Performance Score	0.1086	0.0592 (-)	0.2646 (-)	0.0632
Total Number of Innovations	0.1581	0.6468** (-)	0.1327	0.2263
Number of Responsive Innovations	0	0.1960 (-)	0.5697**	0.3150**
Number of Creative Innovations	0.2017	0.6102** (-)	0.2168 (-)	0.0632
Network Dependence Score	0.3538	0.2993 (-)	0.2504	0.4496**
External Link Score	0.1685 (-)	0.4310 (-)	0.1367 (-)	0.2579

Unless specified, correlations between the variables are positive.

** = Significance at 0.05

* = Significance at 0.10

In testing hypotheses H6.3 and H7.3, the results are mixed. Hypothesis H6.3 is not supported as there are no significant relationships between performance and macro-level trust scores. Hypothesis H7.3, testing the relationships between innovation scores and macro-level trust, fails for total and creative innovations in all categories. However, when H7.3 is limited to only responsive innovations, it is supported for the overall sample and within the maximalist subcategory. Also of interest is the finding, within the pragmatist group, that macro-level trust scores correlate negatively (and significantly) to creative innovation scores. The significance of this finding and the importance of macro-level trust for responsive innovation are detailed in Chapter 8.

Summary of the Hypotheses Test Results

This chapter provided empirical results for the correlations between the independent variables – network dependence, external links, trust mechanisms – and the dependent variables used in this study – performance and innovation. The focus here was on the provision of statistical data and the formal testing of hypotheses H2 through H7. The results of the tests are mixed but useful in illuminating the role of agents and structures of social relations in Mwanza's manufacturing sector. Table 7-7 summarizes the results of each hypothesis test (including H1 which was tested in Chapter 6) both for the sample as a whole and within each typological subcategory.

In general, it is found that the relationships between social variables and performance are less direct than the relationships between social variables and innovation. Performance levels were only significantly associated with external link scores and micro-level trust scores for the overall sample. Within the subcategories, performance scores were significantly associated with micro-level trust among the

minimalists and with external link scores for the maximalists. These findings indicate that network dependence and higher-order versions of trust (i.e., macro-level) have little direct influence on success. Instead, success appears to be driven more by the development of key business connections through either successful shared experience with a few, well-trusted, individuals (the micro-level trust finding) or through preexisting links to the outside that provide information, inputs, opportunities for financing, or extended market access (the spatial extensiveness or external link finding).

Ultimately, performance appears to be more a function of costs, price, quality, market access, and financing than it is about the quality of an individual's social relations. When social relations are able to improve these technical factors, however, they can contribute to performance. Examples of such influences may include situations where a manufacturer has links to outsiders having lower cost inputs (the external link score) or circumstances when a small-scale businessperson has a few key individuals who can be trusted to manage the business while the businessperson is doing other tasks (the micro-level trust score). Despite these indirect connections, it is important to note that business success is ultimately achieved through effective and efficient competition in the market place. Social networks can help but only when they lead to improvements in a firm's market share, pricing, or productivity.

Unlike the weak correlations observed for the performance variable, the results for innovation demonstrate the potentially far-reaching influence of social behavior on the development of firms and industries. For the overall sample, innovations, in their total, responsive, or creative forms, were significantly influenced by network dependence or density, external links, micro-level trust, and macro-level trust. Within the

subcategories, there are significant and positive relationships to network dependence (the pragmatists), external link scores (the maximalists), micro-level trust scores (the maximalists), meso-level trust scores (the minimalists), and macro-level trust scores (the maximalists). The extent of these findings and the distinctions between the influences on responsive innovations versus the influences on creative forms of innovation are assessed further in Chapter 8.

In sum, the findings demonstrate that not only is it important that innovative social structures be available to businesspeople but also that individuals be willing to participate in such institutions. Thus individual orientations and attitudes about social relations are as important as the extent and density of the networks made available to businesspeople. This finding is significant since most approaches relating innovation or technological change to networks focus on the structures available to enterprises and entrepreneurs, not the attitudes, egos, and capacities of the agents determining a firm's course of action in response and relation to these social structures and institutions.

Table 7-7: Summary of the Results for the Hypothesis Tests

	Hypothesis	Overall Sample Test Result	Minimalist Test Result	Pragmatist Test Result	Maximalist Test Result
H1	In Mwanza, the conventions observed in business networks are more than cost-reduction mechanisms, they provide important mechanisms for social interaction and are important for identity formation among businesspeople.	Supported (details provided in Chapter 6)	N/A	N/A	N/A
H2	In Mwanza, enterprise performance is positively correlated to a businessperson's level of dependence on networks.	Rejected	Rejected	Rejected	Rejected
H3	The number of innovations developed by a businessperson in Mwanza is positively correlated to his or her level of dependence on networks.	Supported for total, creative, and responsive innovations.	Rejected for all innovation categories, significantly negative relationship for responsive innovations.	Supported for total innovations, rejected for creative and responsive.	Rejected for all innovation categories.
H4	In Mwanza, a businessperson's external link score is positively correlated to the performance of his or her enterprise.	Supported	Rejected	Rejected	Supported
H5	In Mwanza, a businessperson's external link score is positively correlated to the number of innovations developed by the businessperson.	Supported for total innovations and creative innovations. Rejected for responsive innovations.	Rejected for all innovation categories.	Rejected for all innovation categories. Significantly negative relationship for responsive innovations.	Rejected for all innovation categories.

Table 7-7—continued

	Hypothesis	Overall Sample Test Result	Minimalist Test Result	Pragmatist Test Result	Maximalist Test Result
H6	In Mwanza, an enterprise's performance is positively correlated to the owner or operator's use of a trust mechanism.	N/A	N/A	N/A	N/A
H6.1	Micro-level Trust & Performance	Supported	Supported	Rejected	Rejected
H6.2	Meso-Level Trust & Performance	Rejected	Rejected	Rejected	Rejected
H6.3	Macro-Level Trust & Performance	Rejected	Rejected	Rejected	Rejected
H7	In Mwanza, the number of innovations observed in an enterprise is positively correlated to the owner or operator's use of a trust mechanism.	N/A	N/A	N/A	N/A
H7.1	Micro-level Trust & Innovation	Supported for total and creative innovations. Rejected for responsive innovations.	Rejected for all innovation categories.	Rejected for all innovation categories.	Supported for creative innovations. Rejected for total and responsive innovations.
H7.2	Meso-Level Trust & Innovation	Rejected for all innovation categories.	Supported for responsive innovations. Rejected for total and creative innovations.	Rejected for all innovation categories.	Rejected for all innovation categories.
H7.3	Macro-Level Trust & Innovation	Supported for responsive innovations. Rejected for total and creative innovations.	Rejected for all innovation categories.	Rejected for all innovation categories. Significantly negatively relationship for total and creative innovations.	Supported for responsive innovations. Rejected for total and creative innovations.

CHAPTER 8 INTERPRETING THE FINDINGS

Introduction

The results presented in Chapters 6 and 7 offer numerous insights into the means through which social relations are utilized by firms and about the different types of business networks developed by entrepreneurs and manufacturers in Mwanza. The findings demonstrate the complexity of these networks and the varying degrees to which businesspeople are able to benefit from them. The typology of firms is useful in this regard as it highlights the different levels of social participation and then allows correlations to innovation and performance scores to be made within subcategories of social behavior. Although the particular findings of the hypotheses tests may be useful for understanding the behavior of firms in Mwanza, the broader implications of this research lie in its usefulness to development practitioners and economic policymakers in East Africa.

This chapter highlights these implications through a presentation of the major findings. Five general findings are presented and discussed in detail. These conclusions tell us much about the importance of business networks for industrial development and about the particular factors that enable individuals to use social relations for innovation and entrepreneurship. Moreover, limitations on social networks are addressed and other factors are noted that may contribute to the success of firms. The objective here is not to

argue that social networks are everything but to identify the key attributes of successful businesspeople and firms that enable them to maximize the benefits associated with social relations.

The chapter begins with an argument in support of conceptual frameworks that explicitly identify agency and structural variables in social institutions. It is contended that conceptualizations like the one used in this study enable researchers to draw out the particularities of social contexts and to explore agency factors more directly. In the next section, four major social characteristics of innovative networks are reviewed and their importance for industrial development is detailed. It is argued that networks best facilitate innovation when they are structurally dense and spatially extended and when the businesspeople participating in them are willing to create strong bonds in their local communities and build social extensions or bridges to outsiders from other communities and regions.

Agency factors are more explicitly addressed in the sections that follow. First, the findings demonstrate the importance of individual orientations regarding social relations. Specifically, it is argued that businesspeople who are more open socially are better able to innovate and compete. Second, the roles of different trust mechanisms in facilitating innovation are described and it is contended that a combination of trust strategies is critical for a firm to achieve both responsive and creative forms of innovation.

In the final discussion section, limitations on social behavior and social characteristics are highlighted and it is stressed that these are not the sole determinants of success or failure in firms. Other factors (e.g., education, race, experience, and access to financing) are also important for performance, many of which cannot be directly

addressed by building trust or through one's participation in a business network. The chapter closes with a brief summary of these conclusions and a preview of the final chapter.

The Institutional Framework and Business Networks in Mwanza: The Importance of Situating Firms and Economic Activities in Social Contexts

The findings here contribute to our understanding of the factors that drive the formation of business networks and the creation of trust among businesspeople in East Africa. Beyond the particular relationships between network density, external links, trust, performance, and innovation, this research has demonstrated the influence of an entrepreneur or businessperson's personality and social situation on his or her ability to innovate. To achieve this understanding, it was necessary to explicitly account for the attitudes of individual firm owners and to detail the social context in which their firms are situated. Simply stated, it is found that industrial contexts are about more than inputs, firms, and markets and that the reasons behind a manager or owner's business behavior often transcends notions of rationality or bounded rationality. Cultural, political, and social factors play varying roles and each of these influences evolves and changes through time in a given place.

The study has assessed not only the characteristics of the social relations between firms and within industries, but it has also examined the broader context where business networks emerge in Mwanza. Beyond structural configurations (e.g., rules, norms, network extent and density), it has been shown that networks are imbued with meaning systems, representations, and power relations, many of which develop through the individual experiences of the entrepreneurs and businesspeople participating in them. In

examining the cognitive dimensions of social relations, such meanings, representations, and capacities for action emerge as critical factors influencing the ability of a businessperson to use social relations to his or her benefit.

The institutional framework presented here accounted for some of these factors as it conceptualized the relationship between the structures reflecting behavior patterns in social networks and the cognitive processes of the individuals or agents influenced by these patterns. Structures – such as norms, rules, conventions, and routines – are imposed on individuals and infused into their conceptions of society and business relationships. Entrepreneurs and businesspeople, in turn, interpret these structural elements and innovate them as needed or as is possible. As Figures 2-2, 6-2, 6-3, and 6-4 demonstrate, there is a process of negotiation between individuals and society and those best able to adapt or innovate will be those most likely to reap the rewards of social participation. The ability of an individual to interpret the signals and his or her perceived capacity in relation to social structures are critical factors determining the quality of the information and knowledge made available to a firm through social participation. In essence, individuals who feel empowered and socially confident are better able to innovate their production systems and product lines.

Individuals who are highly capable socially are also able to create innovative social structures and institutions. Social innovation, in turn, can also lead to innovation in the firm and/or the creation of novel forms of knowledge. By breaking the traditional molds of doing business or by reconfiguring the social structures driving business activities in a society, socially innovative individuals can improve a firm's ability to tap markets, access information, and obtain financing. Moreover, improved relations may

lead to greater visibility in the manufacturing community and thus can contribute to an individual's reputation. The benefits of a good reputation, in turn, feed back into information and credit relations. Those businesspeople having an implicit or explicit understanding of the value of social innovation appear to be those best able to innovate their product lines and production practices.

The typology of firms demonstrates how this finding can be applied practically as it represents a scale of social innovativeness among manufacturers in Mwanza. Minimalists are the least socially innovative and use relations primarily to meet basic needs in their business activities. Pragmatists fall in the middle and innovate their social relations only when there is a clear potential for the accrual of benefits from such changes. Maximalists are the most socially innovative as they value social relations for reasons beyond their short-term or immediate benefits. Novel relations are valued and multiple objectives (e.g., credit, information, and reputation) are pursued through concentrated efforts at building social links throughout the community. Moreover, external connections are deemed particularly important as they offer channels for unique ideas not already common among local firms.

In sum, the conceptual framework developed and applied here helps to demonstrate the value of situating entrepreneurs, industries, and firms within particular geographic contexts. Moreover, it stresses the importance of individuals and their cognitive processes in driving the creation of social structures. This is an important consideration since most conceptualizations of business networks focus on the patterns leading to innovation not the processes driving the creation of these patterns (Ettlinger 2001). In doing so, it is often assumed that innovative social patterns in one location can

be shifted to another and a similar outcome achieved.¹ As the findings here demonstrate, this assumption is problematic since the social tendencies of agents *within a single context* vary significantly thus making assumptions about the inter-locational transferability of social institutions misleading in many cases.

The Structural and Agency Factors Contributing to the Development of Innovative Social Competences and Networks

On a more applied level, the results of this study demonstrate the importance of strong intracommunity relations and a diversity of intercommunity connections for innovation and performance. Businesspeople able to create such links and relations (i.e., the maximalists) can be viewed as being more socially competent than those unable to do so (i.e., the minimalists). This is important since the more socially competent an individual is, the better able he or she is to contribute to social capital in a community or industry. Regions accumulate social capital and competences and manifest these as institutional endowments that may facilitate the creation of industrial clusters and innovative *milieux* (Maskell & Malmberg 1999). If regional economic development is to be incubated for the long term, it is important that policymakers understand both the structural and agency-related attributes of innovative social competences and networks.

¹ A good example of this logic is the widespread diffusion of village banking and micro-credit institutions throughout the developing world. The model for these community banks comes from the widely successful Grameen village banking system first developed in 1976 in Bangladesh. The Grameen model has been adopted and diffused by numerous NGOs, governments, and aid organizations throughout the world. Village banks typically lend money to small groups who ensure that repayments on loans are made in a timely fashion and that the benefits of the capital are distributed equitably within the group. Thus the lending process requires that there be trust and networks among the group receiving the assistance. The results both within and outside of Bangladesh have not been entirely positive and there are significant limitations on rotating savings and credit associations (RoSCAs) and village banks. See Schuler et al. (1998), Kimuyu (1998), and Schreiner (2000) for positive and negative evaluations of microcredit programs in Bangladesh, East Africa and Argentina.

In doing so, it is useful to view social competences as emergent capabilities embedded in a region's historical, political, cultural, and economic context. These capabilities are not easily imitated nor "pasted" on through policy. Instead, innovative capabilities among firms are nurtured through the provision of an enabling environment for entrepreneurship. This study identifies four key indicators of such an environment: dense local networks, spatially extended networks, businesspeople willing to bond with others in industry and the community, and businesspeople willing to build social bridges across spatial, social, cultural, and political divides. It is important that these characteristics be viewed in parallel as innovation is best facilitated through a combination of all of them, not simply through the presence of some. In essence, these indicators tell us much about the institutions (structures) and individuals (agents) needed to build social capital and create innovative industries.

Structural Factors in Innovative Business Relations

Structural factors relate to the patterns, norms, routines, and rules observable in a given social context. As structures, these factors are somewhat slow to change and are constructed and accumulated over time through the actions of individuals. In essence, social structures reflect tangible investments in social participation that must be maintained less depreciation decrease their value to firms. The findings here highlight two structural factors evident in the networks used by innovative firms: dense local relations and spatially extended relations.

A network dependence variable was applied here as proxy for social interconnectedness and network density. Although this variable is not a formal measure of density it does reflect the interconnectedness of an individual to others in the local

context. Network density is an important factor influencing innovation and is indicative of a businessperson's willingness to trust others more readily and his or her desire to bond with others. As firms develop and their business relations become more embedded locally, networks emerge as efficient means for transmitting and receiving information and ideas. In effect, local networks provide social infrastructure for effective information exchange and enable businesspeople to act creatively and responsively in an uncertain economic climate. Innovation processes may be enhanced and knowledge creation accelerated when these networks are dense and the connections within them strong.

Spatial extensiveness was measured here through the businessperson's external link score. Extensiveness is found to be an important structural characteristic of networks that can help improve performance and contribute to innovation. Creative forms of innovation are particularly enhanced through spatial extensiveness. However, it is important to stress that spatial extensiveness is not necessarily an indicator of openness or trust. Instead, extensiveness may be the result of predetermined ethnic, corporate, or family connections and many firms that are more spatially extended have a greater reliance on ascribed or meso-level versions of trust. Despite these potentially negative implications, extensiveness remains a valuable characteristic of innovative business networks that enables firms to connect to outside sources for capital and information. Novel ideas, new technologies, financing, and better practices can result from these relations and performance is significantly better for those firms utilizing more spatially extended networks.

Figure 8-1 summarizes the role of structural factors in business networks and highlights their influence on performance and innovation. The typological categories are

included to demonstrate the usefulness of such categorizations and to show the differences in the types of networks used by minimalists, pragmatists, and maximalists. Moreover, the groups represent firms and enterprises having different levels of social capital as evidenced in the different structural configurations of their business networks. Minimalists have the least developed network structures while maximalists have the most developed and extended social relations. Once again, pragmatists straddle the middle ground and utilize either dense local networks or spatially extended relations (typically to the firm's foreign headquarters or the businessperson's country of origin) as a primary social strategy. Thus pragmatists tend to focus either on intracommunity bonding or on the maintenance of strong bridges beyond the Mwanza context.

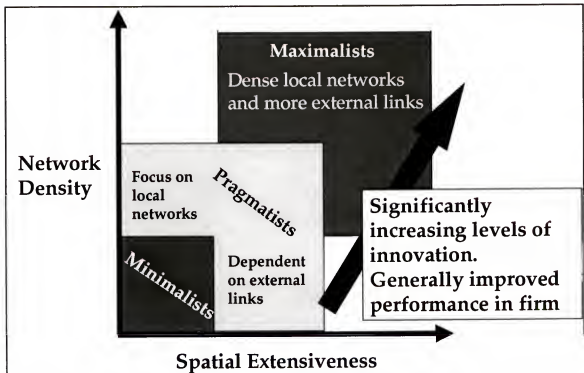


Figure 8-1: The Role of Structural Factors in Business Networks and Inter-firm Relations

Agency Factors in Innovative Business Relations

Agency factors differ significantly from structural factors as they tell us much about the processes leading to the creation of innovative networks. These processes are driven by individuals' cognitions, egos, and understandings and are more difficult to generalize about than the social patterns created through them. Power, confidence, and motivation influence individual actions and reflect differences in the capacity of managers and entrepreneurs to improve performance and innovate their production systems. Agency is what separates the entrepreneurs from mere managers and it is the means through which innovative networks and social capital are created.

The influence of agency on social relations was measured here through the use of the trust mechanism variables. The willingness and capacity of an individual to trust another emerges through his or her cognitive processes and experiences. Trust is about accountability and reliability and it reflects the degree to which one individual will take a risk on another. Although trust has a clear logical purpose and utilitarian value, it is not easily assumed, universalized, or rationalized as the constitutive and representative factors contributing to its establishment vary widely among individuals. The findings here highlight the particular roles of micro-level and macro-level trust mechanisms in the innovation process. In general, meso-level trust is found to be less important for innovation and performance.

The extent to which an entrepreneur uses micro-level trust mechanisms is applied here as proxy for the degree to which he or she bonds with others. Micro-level trust is developed through sustained interactions where experiences are shared and competence levels assessed. Micro-level trust is thus indicative of one's desire to bond with others and is found to be an important contributing factor to performance and innovation levels

in Mwanza. Bonding is an agency-driven process essential for building quality networks that enable firms to reduce uncertainty and create opportunities. Bonding is important for improving the reliability of business interactions, for developing new ideas independently, for improving performance, and for providing a mechanism to continue production in the face of capital or credit-related obstacles. The willingness and ability to bond with others is an important characteristic of agents able to construct effective entrepreneurial networks.

The degree to which entrepreneurs bridge – or build social connections outside their communities – is assessed here through the variable macro-level trust. Macro-level trust is viewed as more an attitude than a process or mechanism. It is, in effect, a personality trait that reflects a businessperson's (agent's) attitude about dealing with new things; be they people or ideas. Macro-level trust tells us something about a person's openness, his or her willingness to trust in public institutions, and his or her interest in connecting to people outside the immediate business community. Macro-level trust enables bridging and bridging improves the responsiveness of firms to shifting market conditions. Specifically, bridges provide diverse sources of information, create access to novel ideas, and enable firms to adapt to changes in the local economy.

Figure 8-2 summarizes the relationships between trust mechanisms and the typology of firms in Mwanza. The most striking difference is evident in the minimalists' low levels of trust and the maximalists' high levels of trust. As agents, minimalists are reactive to social signals, introverted, and use relations only as immediate needs dictate – either in a crisis situation or when in need of credit or immediate information. Relations are more about one-to-one exchanges and, in general, less trust is required to develop and

maintain these since accountability is easier to manage within them. Alternatively, maximalists are proactive in building new and novel relations across a wider range of individuals and communities. Macro-level trust is indicative of this behavior and these wide-ranging networks. Pragmatists primarily utilize micro-level and meso-level trust mechanisms and are consequently less responsively innovative than the maximalists. Meso-level trust is particularly important to pragmatists having ethnically based links within Mwanza or connections to firms and individuals outside the region. For other pragmatists, it appears that there is a dependence on micro-level trust to the exclusion of other mechanisms.

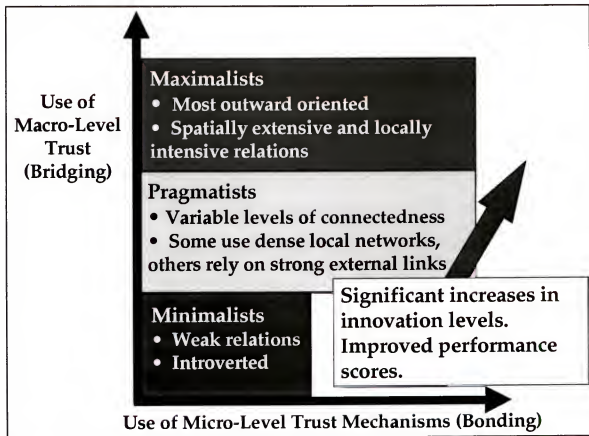


Figure 8-2: The Role of Agency in Business Networks and Inter-firm Relations

In sum, the structural and agency-related findings demonstrate the importance of accounting for both individual perspectives on business relationships and patterns of behavior in networks when examining the social processes behind economic change. For manufacturers in Mwanza, it is found that four variables – network density, spatial extensiveness, bonding, and bridging – are critical in the process of social competence creation. The findings support the contention that the role of business networks in regional development is dependent on both structural and agency factors. Not only should networks be structurally dense and spatially extensive, but entrepreneurs and firm managers must be willing to develop and maintain these structures through close intracommunity ties and connections to others outside the community or region. Agents are thus crucial for making networks dynamic and responsive for the long term while structural factors play an important role in determining an individual's capacity for action in the short run. When networks are viewed from both perspectives, one can better account for a region's institutional endowments and thus more accurately predict the impacts felt by policies hoping to nurture entrepreneurship, innovation, and industrial development.

Inward versus Outward Orientations: The Value of Typological Categories

The typology developed in this study – of minimalists, pragmatists, and maximalists – reflects differences in business strategy, social competence, and firm-specific levels of social capital. Most importantly, the categories draw out the relationship between innovativeness and a manufacturer's willingness and ability to trust others. This relationship is important for long-term industrial development, particularly in a context undergoing economic liberalization. In simple terms, the typology represents

a continuum from locally oriented to globally oriented firms. This is not a new idea as evidenced in the work of Malecki and Oinas (1999), Malecki and Poehling (1999), and Seppala (1998). Through theory building and empirical studies from a variety of contexts, these authors have demonstrated the importance of outward social orientations and extrovertedness in innovation, learning, technological change, and rural development processes. The findings from this study support this literature and, through the conceptualization of social orientations presented below, stress that it is important for scholars of networks and innovation to connect social attitudes and behavior patterns to the trust mechanisms used by entrepreneurs and businesspeople. In doing so, agency issues are more directly addressed and better understood.

Figure 8-3 summarizes the relationship between trust, innovation, and social characteristics as it is evident in Mwanza's manufacturing sector. The Figure highlights the importance of macro-level trust for responsive innovation and micro-level trust for creative innovation. The differences in social styles reflect divergence in the willingness and ability of businesspeople to trust both at the micro level and the macro level. From these findings, two major strategies relating trust to innovation are identified: outward orientations and inward orientations.

Outward-oriented manufacturers

In outward-oriented firms, innovation is achieved through the strategic use of loose ties based on macro-level trust and strong ties based on micro-level trust. The firms most successful with this strategy are the maximalists. Their innovation scores demonstrate the success achieved through this social flexibility. Creative innovation is enhanced through strong ties to key individuals while responsive innovation benefits

from loose ties to a wider range of manufacturers, businesspeople, and others in the community. Although the most outward-oriented firms are maximalists, there appear to be a few pragmatists favoring such an orientation in business.

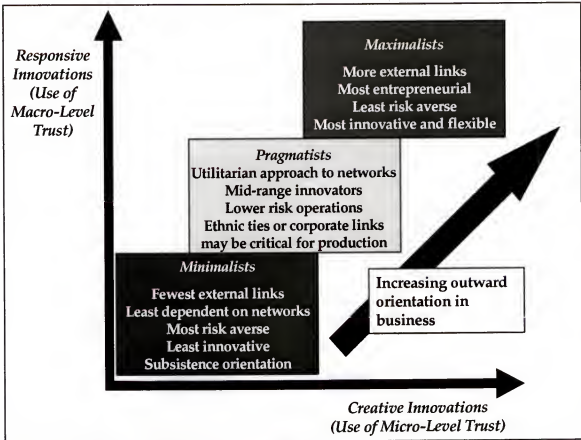


Figure 8-3: The Importance of Social Orientations for Innovation

Managers and owners of outward-oriented firms are more willing to take risks and invest in new ventures locally. By casting a wide net socially, a manufacturer can keep track of local business activity and use information-gathering relations to identify new opportunities. To do this, a businessperson should be active socially and willing to discuss the activities of the firm with outsiders. Although this exposes the firm to competitors, the benefits appear to outweigh the costs in the long run. Macro-level trust

is evident in these connections and is important for maintaining steady and diverse information flows.

The result of looking outward is a greater dependence on networks and the development of more links outside Mwanza. Flexibility is achieved and innovativeness enhanced through this behavior and outward-oriented firms appear better able to adapt to rapid changes in the Tanzanian economy. Despite the virtues of openness, however, there are limitations placed on this behavior by the Tanzanian state. Openness may draw attention to firms and expose them to repressive and rent-seeking activities by corrupt officials, particularly if a firm is successful and well endowed with capital. This is an important factor limiting outward-oriented business strategies and unless there are extensive reforms in the relationship between business and government in Tanzania, it is unlikely that openness will become more commonplace.

Despite the constraints, outward orientations are vital for economic development in cities such as Mwanza in that they contribute to local levels of social capital. As a number of scholars have demonstrated, openness to wider-ranging social relations can provide links to outsiders and create economic opportunities through the facilitation of collective action (Burt 1992, Flora & Flora 1993, Malecki 2000). The "thickness" and extent of these relations are important factors determining the degree to which social relations contribute to Putnam's (1993:15) "networks and norms of civic engagement" (Amin & Thrift 1993, Uzzi 1997a, Humphrey & Schmitz 1998). Thus outward-oriented businesspeople contribute to social capital in their communities and industries through their willingness to develop intercommunity networks and external links. Macro-level

trust encourages the development of such relations and can thus be viewed as a positive contributor to the level of social capital in a firm.

Inward-oriented manufacturers

Inward-oriented manufacturers rely on different trust strategies for business. Most significantly, there is an increased reliance on meso-level mechanisms and a decreased use of macro-level mechanisms. This strategy is prevalent among most pragmatists and all minimalists. Inward-oriented businesspeople trust few and use macro-level trust only in times of crisis – not as a casual means of information gathering. Inward-oriented firms fit two classifications: low-capital informal businesses and higher-capital family or ethnically oriented firms. The low-capital firms are generally subsistence-oriented or owned by newcomers to Mwanza. The higher-capital firms may have long histories in Mwanza but rely on few business ties outside a core group or a corporate structure.

The inward-oriented path is one that bypasses the use of macro-level trust mechanisms. Innovation is achieved through narrow ties and ascriptions appear to play an important role in the social relations of inward-oriented firms. Inward orientations, although potentially successful from a profitability standpoint, may fail to bring broader economic benefits to communities or regions. When inward-oriented firms succeed, the capital accumulated through their success may be transferred offshore, spread out amongst immediate and extended family members, used in making stable but static investments (e.g., building a house in one's home region), or held onto as cash in case of a financial emergency. This bottling-up or transferring-out of capital effectively limits the local spillover effects associated with successful but inward-oriented firms.

Moreover, this type of behavior inherently discourages risk-taking socially thus stagnating innovation and limiting the creation of social capital.

There are benefits to an inward orientation, however, especially to businesspeople uncertain about their ability to protect themselves from a repressive state. Asian businesspeople and owners of microenterprises, in particular, have good reason to be wary, having been victimized by government policies in Tanzania on a number of occasions. Key business relationships for many of these firms are maintained in narrowly ascribed networks or within communities where a strict accounting of behavior is possible. Unfortunately, however, collaboration outside these networks may be inconvenient, risky, or costly and this may limit the adaptability of inward-oriented firms in a rapidly liberalizing economic context.

The Importance of Trust for Innovation

In general, the results show that an increasing reliance on or use of social relations corresponds to an increase in a firm's level of innovation. It appears that social relations facilitate the innovation process by providing access to greater resources and more diverse sources of information. Trust is a key component of these relationships and the findings demonstrate how its influence varies among the different types of businesspeople in Mwanza. Beyond this descriptive analysis of the role of trust, empirical findings further demonstrate the relationships between types or scales of trust and the innovation process. As the statistical data presented in Chapter 7 indicate, each type of trust mechanism has a particular relationship with innovation in some form or another. These relationships are stylistically described below.

Micro-level Trust and Innovation – Bonds for Creativity

Micro-level trust influences innovation by ensuring the predictability of a business partner and by providing a reliable mechanism for transmitting and receiving information. Building up these kinds of relations within Mwanza appears to enable businesspeople to mobilize resources more quickly, efficiently, and with less uncertainty. Through the shared understandings and increased confidence built through mutual experience, micro-level trust encourages the flow of non-standardized information and enables individuals to collectively create and accumulate knowledge. This information and knowledge can range from discrete bits of data related to prices, costs, and designs to more tacit and “sticky” forms that are embodied in routines or other forms of know-how. These less-tangible understandings are most effectively transmitted through face-to-face contact, especially when there is a close bond between two individuals.

It appears that creative forms of innovation benefit the most from micro-level trust mechanisms. This finding relates to the strong bonds that accompany the personalized relationships built through micro-level trust. The closeness of these connections facilitates deeper levels of communication and thus influences the creative process. The tacit forms of knowledge and know-how transmitted through these relations are vital for long-term technological change and for industrial development in regions (Maskell & Malmberg 1999). Moreover, the increased confidence that emerges through micro-level trust encourages the flow of such information in a community and facilitates the creation and accumulation of knowledge in firms.

The findings for the relationship between micro-level trust and innovation also demonstrate how social competence contributes to creative innovation. Shared experiences and mutual understandings are excellent means for evaluating the technical

capacity or validity of a business partner. Once an individual is identified as being technically or financially competent, he or she can then be called upon in time of crisis or when a firm's manager or owner needs assistance regarding markets, products, inputs, or technologies. The bonds inherent in relations held together with micro-level trust are important influences on an individual's perceived capacity for action in such situations. Without strong links to competent individuals, innovation may be stagnated and risk-taking discouraged.

Beyond its innovation impacts, micro-level trust also appears to help manufacturing firms in Mwanza perform better. Long-term and well-established relations (distinct from ethnic or kinship networks) are important and, despite the potential narrowness of these kinds of networks, such bonding relations appear to be essential for the success of firms in Mwanza. This finding may be particularly important in demonstrating why it is difficult to artificially create social networks through externally driven initiatives (e.g., microcredit programs). If business links are not developed individually over time and through shared experience, participants in such collective schemes may trust their partners little thus reducing the overall benefits and potential sustainability of such networks.²

Meso-Level Trust and Innovation – Passive Imitation through Ascriptions

The importance of meso-level trust mechanisms for innovation is most evident when businesspeople expand their product lines through imitation – a responsive form of innovation. This practice is most evident among the minimalists although imitation was

² In the case of one micro-credit organization in Mwanza, this lack of trust was evident in some of the groups receiving loans. In one case, many members of a group insisted on depositing their repayment money directly into the bank account instead of giving it to a treasurer. Embezzlement of group funds by members is not uncommon in these organizations, thus trust is difficult to build in many instances.

observed among firms of all sizes and among businesspeople of all types. Most commonly, imitation-based innovation relates to the development of new product designs, many of which originate outside East Africa. Foreign design ideas are collected from secondary sources (e.g., product catalogs, newspaper advertisements, videos) or by copying new designs observed in shops or showrooms around town. Such designs are desirable because of their foreign origins and imitation is predicated on the belief that they will be perceived as modern and attractive to customers.³ In ascribing the notion of sales success to foreign designs, manufacturers are in effect using meso-level trust mechanisms in the innovation process.

Beyond this responsive form of innovation, meso-level trust plays an uncertain role. Ascriptions, although useful for passive imitation of new designs and for circumstances when quick decisions must be made, do not otherwise have a strong influence on innovation. Instead, meso-level trust is about accountability, efficiency, and risk mitigation, not innovation. Ascriptions simplify the decision-making process and accelerate basic exchange relationships but the narrowness of meso-level relations limits the quality of the information they provide. In essence, ascriptions are poor substitutes for micro-level trust and inadequate replacements for formal institutions or macro-level trust mechanisms.

Macro-level Trust and Innovation – The Role of Bridging

The link between macro-level trust and innovation is important because it demonstrates the value of mutual assistance and the role of social capital in economic

³ A popular recent design for coffins emerged through the hype surrounding the death of Princess Diana in 1998. A few carpenters mentioned the popularity of a coffin modeled after the Princess's after it was seen in newspapers and on television.

development. This relationship is most evident when examining responsive innovation. Responsive innovations are driven by external factors such as changes in the economic climate. These changes may involve resource or input availability, sudden shifts in market demands, or when there are political factors or forces directly influencing market activities. Under such circumstances, information exchange is important for gauging the severity of the issues and for assessing how others are adjusting.

The relationship between responsive innovation and macro-level trust is one of information and security in the face of unfavorable market changes. Macro-level trust is essentially a key component of the social safety nets businesspeople create for themselves. Firm owners and managers use macro-level trust to extend their relations outward in the search for capital, ideas, and information and to assess their performance in relative terms. It is through these relations that goodwill is fostered and intercommunity bridges are built. Responsive innovation results from the information provided through these relations and the benefits to those participating in them may be extensive. If macro-level trust exists in a community or industry, information exchanges may occur between a wide range of firms and individuals and this may lead to the development of multiple responses or options for action when dealing with an issue or crisis. For example, new product designs, tricks of the trade, or production schemes may be revealed through wide-ranging networks and recipients of the information are able to emulate (responsively) the actions of others.

Macro-level trust is also important in times of repression by state agencies and institutions. This is particularly true when the municipal government or revenue authorities crack down on small and medium-scale businesses. These actions often occur

with little or no advanced warning and information regarding government activities (e.g., police raids on informal markets) may be of vital interest to businesspeople. This form of information dissemination is one example of what Scott (1985) and Tripp (1997) have described as “weapons of the weak”. The use of these relations is most apparent among informal microenterprises although there are indications that formal firms rely on similar methods of information gathering to deal with tax audits or revenue authority investigations. In either case, information networks such as these may be extremely important for protecting business interests. Moreover, these types of social relations foster goodwill and macro-level trust appears to be an important bridging mechanism in society and industry.

Despite these virtues, not all firms use openness and bridging strategies to their benefit. For example, macro-level trust scores exhibit a strong and significant negative correlation with creative and total innovations for the pragmatist group (see Figure 7-6). Thus pragmatists who are unwilling to extend their relations beyond narrow communities may not sacrifice their capacity to creatively innovate. Instead, it appears that some pragmatists benefit by maintaining strong external links to their country of origin, by depending on ties to the firm’s corporate headquarters, and/or by relying on the use of strong local ties within ethnic or religious communities. These strategies limit risks, ensure accountability, and act as a buffer against a potentially predatory state apparatus. However, they appear to contribute less to responsive innovation, social capital, or overall levels of trust in a region or industry.

The Limitations on Social Relations for Innovation and Entrepreneurship

Although the findings provide significant support for the contention that business networks are critical for innovation and industrialization, it is not argued here that social relations are everything. Socially active entrepreneurs are able to achieve better performance and more innovation, but there are other factors driving success in Mwanza's manufacturing sector. Specifically, it appears that innovation and performance are also influenced by the industry a firm is competing in; the firm owner's education level, ethnicity, and race; the firm's access to corporate capital; the wealth of the firm owner's family; the psychological characteristics of the firm owner; and by the macroeconomic factors that influence markets and consumer demand. However, because the intention of this study was to better understand the role of social relations in innovation and entrepreneurship, an analysis of the role of such factors was deliberately excluded. Moreover, the typological groups developed here are based solely on social factors and this also confuses the precise role of other influences on firms in Mwanza.

Despite these omissions, it is important to stress that non-social characteristics can have a significant influence on the abilities of individual business owners to innovate and improve the status of their firms. Such conditions and characteristics as wealth, education, ethnicity, and formal links to corporate structures may be critical influences not only on the technologies and markets firms are able to access, but also on a firm owner or manager's perceived capacity for action and innovation in his or her business activities. Future research should explore the influences of such characteristics on social behavior in order to help explain why some individuals are more socially competent than others. As a starting point, Trulsson (1997) offers insight into the influence of such factors as education, wealth, and kinship on entrepreneurial strategies in the Lake

Victoria basin. His analysis is largely descriptive, however, thus making the findings somewhat difficult to extend beyond his small sample.

Also important to consider are the impacts of industry types on the social relations needed by firms. In this study, no corrections were made for the industries studied – furniture making, metal working, foam production, and cotton processing – and this may have influenced the social categorizations of some of the firms. There are, for example, undoubtedly differences in the types of relations needed for furniture makers when compared with the types of relations needed by metal-working shop owners. The distribution of firms in the typological groups does not indicate that this was problematic but it would be useful in the future to compare more explicitly the differences between different manufacturing sectors. Moreover, it would be interesting to compare manufacturing with other economic sectors such as commodity processing, trade, or services.

Beyond such variables as industry types, education levels, wealth, and ethnicity, psychological factors are also important to consider. Frese's (2000) recent compilation of studies on the psychological dimensions of small and micro-scale enterprise in Africa is important in demonstrating the role of such psychological factors as attitude, ego, personal initiative, motivation, and business orientation in determining the success or failure of firms. The authors find that these factors reflect the extent to which a businessperson is entrepreneurial by nature and they demonstrate that there are significant relationships between performance in firms and the psychological attributes of the individuals managing them. Although some of these factors are embodied in the trust variables used in this study, a more explicit accounting or categorization of firms based

on psychological attributes would be useful to further identify the agency-level mechanisms leading to the creation of innovative networks.

Finally, macroeconomic issues and larger-scale political factors remain critical influences on the performance of industries and on the development of healthy civil society. These influences must be considered in conjunction with the findings here as they offer insight into the macro-scale factors driving innovation and entrepreneurship in the region. By combining, comparing, and contrasting the results of this research with those of other studies detailing macroeconomic, political, cultural, and sociological change in Tanzania, it is hoped readers may make connections between the social dimensions of industrial development in Mwanza and larger issues such as globalization, structural adjustment, democratization, and liberalization. Some thoughts on the connections between this research and these broader issues are provided in the concluding chapter.

Summary

This study provides support for much of the literature describing the role of social relations for innovation, social capital creation, and economic development. In the Mwanza manufacturing context, business networks are found to be important factors contributing to the level of innovation achieved in a firm. Agents maximize their innovative capacity through a two-fold approach to social relations based on the parallel use of bonding and bridging strategies. In essence, entrepreneurs should be socially open or outward-oriented if they are to maximize the benefits of business networks. Figure 8-4 summarizes the role of social openness in entrepreneurship and highlights the major limitations on its influence.

Structurally, innovative entrepreneurs (e.g., the maximalists) develop strong bonds with numerous individuals and dense interconnections within the local community. Beyond their importance for efficiency and accountability, these links act as useful mechanisms for creative discussion with other businesspeople. Second, links are developed and loosely maintained to a wide range of individuals from outside the entrepreneur's immediate business community. These links may transcend long distances and/or social or cultural barriers and their usefulness is derived from the ideas and information that accompany diverse social connections. The use of such bridges is ultimately reflected in the flexibility and adaptability achieved by outward-oriented firms. In sum, bonds and bridges represent the key structural factors evident in innovative business networks and are useful indicators of the level of social capital available to a firm or businessperson.

On the agency side, the willingness of entrepreneurs and businesspeople to trust on a more generalized basis is a critical factor determining the extent to which they create social bonds and bridges. Generalized versions of trust are reflected in macro-level mechanisms and are indicative of a businessperson's tendency to take risks with strangers or outsiders. Individual orientations toward social relations with others and general feelings about how trust is established in business are important factors influencing these mechanisms. It is important to stress that although trust is structurally influenced, it is ultimately agent-driven. In drawing trust into our analysis of business networks, it is possible to identify those individuals and agents more likely to construct dense and wide-ranging networks that can facilitate long-term innovation.

Structures utilized by socially open agents	Actions of socially open agents
<ul style="list-style-type: none"> • Densely and widely interconnected local networks (strong intra-community ties) • Spatially extended networks • More intercommunity ties – external links more common • More links to government or development agencies 	<ul style="list-style-type: none"> • Willingness to communicate with individuals outside primary communities • Better able to build strong relationships with a wide range of people • Extensive use of micro-level trust mechanisms (able to bond) • More bridges via macro-level trust • Less importance given to ascriptions or meso-level trust mechanisms
How social openness contributes to entrepreneurship and innovation	
<ul style="list-style-type: none"> ➤ Higher levels of creative innovation in socially open firms ➤ Firms are more responsive to market shifts, liberalization and structural adjustment ➤ Generally better performance in firms ➤ Openness contributes to social capital in industries and communities ➤ Openness facilitates the creation of innovative norms, routines, and institutions ➤ Information exchange and knowledge creation are enhanced through openness ➤ Social bonding and bridging are crucial contributors to entrepreneurship 	
Limitations on the benefits of social openness	
<ul style="list-style-type: none"> ➤ Predetermined or non-social factors related to income, education, ethnicity, race, psychological attributes, etc. may limit one's ability to participate socially ➤ Certain industries (e.g., ones in decline) may not reward openness ➤ Macroeconomic issues or political repression may discourage or prevent openness 	

Figure 8-4: Summary of the Role of Social Participation in Innovation, Entrepreneurship, and Industrial Development

Finally, the approach to social relations and firms used in this study tells us much about the processes behind social capital creation in an industry or region. This is an important finding in that it extends our understanding of social capital beyond static or path-dependent perspectives focused on historical details and/or the patterns indicating social capital's presence. Moreover, it is hoped that the results of this study provide encouragement to researchers hoping to more explicitly account for the role of individual agents in social capital creation and industrial development. Details on the implications of these findings are addressed in Chapter 9 where the focus shifts to broader

considerations about their importance for economic theory, social capital research, and explorations into industrialization processes in East Africa.

CHAPTER 9 CONCLUSIONS AND FUTURE DIRECTIONS

Introduction

This research project developed through a desire to understand the social processes behind East Africa's industrial development. As the findings have demonstrated, these processes play an important role in the day-to-day activities of firms and in the long-term ability of manufacturers to innovate their production systems. When social relations among businesspeople are embedded in the local context, they become manifest in the tacit understandings, routines, conventions, rules, and bases of legitimacy that shape, influence, regulate, and give meaning to business transactions and exchange relations. It is through the embedding process that regions accumulate social capabilities, capacities, and competences for innovation and industrialization. In deconstructing and examining the logics behind and components of these relations, this study has contributed to the literature addressing the processes behind economic development and technological change in Sub-Saharan Africa.

Four key findings emerge from this qualitative and quantitative analysis. First, it is evident that one's participation in a business or inter-firm network is driven not only by a desire to reduce the costs of doing business or to acquire information, but also by less tangible factors such as his or her identity, reputation, and social status. Second, those businesspersons (e.g., the maximalists) who are more willing to be active socially tend to be more innovative than those more introverted by nature. Third, trust is found to be a

key indicator of one's social orientation and a critical agency factor driving the creation of inter-firm networks and innovative business relations. Fourth, social relations, although significant in their influence on firms, are not the sole determinants of success or failure. Other factors, such as education level, access to capital, wealth, market structure, or macroeconomic stability, are also important and must be accounted for when evaluating the potential benefits associated with increased social participation by businesspeople.

These findings have three significant implications for future research and for industrial policy initiatives. First, it is evident that social networks enable manufacturing entrepreneurs to extend their business connections and, in turn, to improve their production systems. Specifically, increasing degrees of openness socially are favorable to innovation, performance, information access, and resource mobilization in Mwanza's manufacturing sector. These findings are important in demonstrating the power of social relations for business development and the value of wider-ranging links for innovation.

Second, individual cognitive processes and agency factors are found to play an important role in determining the quality of a businessperson's networks. If we are to better understand how innovation occurs, it is imperative that agency factors be better accounted for in frameworks conceptualizing the role of social relations in industrial development and innovation. The institutional framework developed and applied here is one means through which scholars can deconstruct the structural and agency dimensions of social relations. Beyond its application for network studies, this approach may also improve conceptualizations of social capital by identifying both the patterns of behavior reflecting social capital's presence *and* the processes leading to its creation. In bringing

together both patterns and processes, our understanding of social capital improves and the obstacles preventing its creation become more explicit.

Third, the findings show that generalized mechanisms of trust are important for the creation of innovative social structures. Such mechanisms enable individuals to trust others more widely and without the need for prior experience or mutual affiliation in a narrow ethnic, kin, or religious group. For local manufacturing to become more successful in Mwanza, it will be necessary that more generalized or goodwill versions of trust emerge, particularly the type manifest in healthier relations between businesspeople and the state. Unfortunately, links between firms and state agencies are weak and, in general, there is little trust between government and industry in Tanzania. Major reform of the legal system and municipal government is needed, particularly at the local level. Policies that foster relations between the state and business and encourage outside links are thus critical for innovation and long-term industrial development in Tanzania.

These findings are applied to three general conclusions. First, the embeddedness perspective provides a more holistic and effective model for analyzing economic development, innovation, and social change than those offered by transaction-cost, neo-liberal, or neo-Marxist theorists. Second, social capital can become a more useful variable in development studies if the processes behind its creation are given as much focus as the patterns reflecting its presence. Third, the industrialization process in East Africa should be viewed as being dependent upon much more than market forces, factor costs, and economic conditions. Beyond these technical factors, the social, cultural, and political context must enable businesspeople to build innovative networks. In targeting industrial development policies, it is thus critical that policy makers and planners account

for the capacities of economic agents (e.g., entrepreneurs) to build such networks independently and that gross generalizations about these agents' responses to programs promoting social relations or networks be avoided.

In the discussion that follows, each of these conclusions is detailed in succession. The focus then shifts to a brief discussion about future research directions. As is true with most studies of this nature, more questions were raised than originally posed and it is clear that this subject area offers extensive opportunities for both longitudinal and cross-contextual research. The chapter and dissertation conclude with a few summary remarks about the general importance of this type of research.

The Appropriateness of the Embeddedness Framework for Exploring Industrialization Processes

The findings of this study are important for understanding the social factors influencing innovation and industrialization in East Africa. Entrepreneurial behavior is embedded in the social context of places and is driven not only by factor endowments, rules, laws, and informal social structures, but also by individual agency and action. Networks can show us how individuals operate within structural limitations and how they innovate both creatively and responsively through social interactions driven by individual needs, egos, and capacities. The extent and depth of these relations tells us much about entrepreneurship in a region and demonstrates how economic behavior is embedded in social institutions. Moreover, in analyzing innovation through social relations, entrepreneurial types emerge as useful heuristic tools for understanding the agency aspects of entrepreneurship.

By explicitly integrating social structures with agents within a single institutional framework, this study assessed the usefulness of the embeddedness concept for explaining social and economic change within regions. The results are encouraging to those in support of this conceptual approach. By integrating social patterns with the processes leading to their creation, destruction, and innovation, one can achieve a more holistic perspective on the *milieux* where businesspeople, firms, and markets interact. The framework is particularly useful in economic geography as it provides an effective means for deconstructing entrepreneurial behavior and business networks on a regional or location-specific level.

Beyond its holistic characteristics, the embeddedness approach highlights the limitations on transaction cost perspectives, regulation theory, and neo-liberal models of technological change and innovation. In these models, institutions are conceptualized as: a) the “rules of the economic game” developed over time and through path-dependencies, b) rationally constructed social, political, and economic systems that transmit cost and price signals to rational individuals, or c) active “agents” regulating the process of wealth accumulation for classes and political interests. Although these conceptual frameworks may effectively describe the social structures associated with industrialization, their limitations emerge when one tries to apply them to get at the processes behind the creation of innovative institutions such as industry-based business networks. When explanations for change and development are attempted, they are typically historically oriented, path-dependent in nature, or based on broad sweeping assumptions about the behavior of large groups of individuals. Groups are manifest in class structures, gender distinctions, cultures, or political parties and the roles of individuals and agents of change

(e.g., entrepreneurs) are filtered out of the analysis. Ultimately, what remains is an incomplete portrait of the processes of economic development, innovation, and technological change.

This is not to say that there is no utility in neo-liberal, neo-institutional, or neo-Marxist ideas and studies. On the contrary, many offer vital insight into the circumstances leading to, consequences of, obstacles preventing, and potential paths of future economic development and industrialization in the developing world. The criticism here relates solely to their implicit or, in some cases, explicit assumptions that the behavior of agents can be universalized, that “agents” in development include governments, NGOs, firms, and markets – not only individuals – and/or that agency factors are of little significance when compared to the quality of the institutions available in a given context. Structures are, of course, vital to the development process. Unfortunately, all too often the complex roles of cognitions, motivations, egos, and attitudes are ignored through the anthropomorphic transformation of social structures and institutions into living agents of change.

It is hoped that this study demonstrates the value of examining agents as individuals who apply individual capacities and capabilities to construct, innovate, and utilize social structures and whose behavior patterns are influenced significantly by the same. The typological categories and the gradations evident in the degrees to which businesspeople trust and utilize social relations empirically demonstrate the limitations on over-structuralized approaches to development studies. In examining the mechanisms of trust building and network creation, it is apparent that the attitudes, egos, and motivations of agents can vary widely. Thus generalizations about the ability of agents to benefit

from institutions cannot be made easily, even within a single context such as Mwanza, Tanzania.

Neo-liberal and neo-institutional views on the use of social relations avoid these complexities except where broad generalizations can be made and then manifest in the variable cost. It is assumed that entrepreneurs' routines, norms, and behavior patterns are developed with the sole objective of reducing cost and that costs are the primary factors causing institutional and economic change. The typology demonstrates that social behavior deemed too costly to one businessperson (e.g., a minimalist) may be perceived as cheap to another (e.g., a maximalist). Moreover, internal transaction-cost calculations depend on many factors (e.g., identities, power, and meanings) thus making generalizations extremely problematic unless one has a clearer sense about what motivates businesspeople to take action socially. By blurring these factors within the variable cost, it is impossible to fully understand the cognitive processes that lead one economic agent or entrepreneur to outperform another.

By directly confronting and accounting for the agency aspects of social participation through a detailed qualitative approach, our understanding of industrial development becomes richer and potentially more useful to practitioners and policymakers. In evaluating firms and entrepreneurs on a case-by-case basis, instead of from a broader industry perspective, data become richer as the connections between individuals, firms, industries, and places are maintained. In contrast, many transaction-cost, neo-Marxist, and neo-liberal approaches strive to "disembed" firms and industries from their geographic contexts. The general belief being that analyses may become more generalized and thus their applicability more widespread.

This desire to disengage economic actors and activities from their particular contexts is problematic in that it ignores the mechanisms that lead to general patterns of behavior and to the construction of informal institutions such as business networks. Moreover, when successful patterns are identified in one location (e.g., the Grameen Bank in Bangladesh), there is an immediate desire to search for similar patterns in other regions or to simply export the successful structure to other places. This factoring out of context is perhaps one reason why economic development programs, policies, and approaches successful in one region (e.g., the “East Asian miracle”) have failed to take root in Sub-Saharan Africa. Instead of focusing on generalizations about what innovative social structures or behavior patterns look like, scholars should search for trends relating the actions of individuals to the creation of such institutions. The geographically focused and sociologically framed approach presented here offers one method for doing just this. By applying this approach to other developing cities and regions, it will be possible to generate a more complete understanding of the factors encouraging or discouraging innovative behavior in industries. In particular, this knowledge will contribute to our understanding of how development occurs in economies undergoing rapid structural change and liberalization.

Finally, it is important to stress that this study applied the embeddedness framework to examine a single node in Yapa’s nexus of production relations – that of technical or economic relations. Beyond industrialization and economic development, one can imagine this type of framework as useful for studies assessing technological change, democratization, cultural transformations, and environmental issues. Embeddedness, when linked with broader conceptual ideas such as Yapa’s, offers a

widely applicable foundation for framing, analyzing, and assessing the behavior of human beings. Its usefulness and its distinction from other conceptual frameworks come with its explicit accounting for agents and the negotiations between them and social structures. Without such an accounting, embeddedness is simply another version of neo-institutionalism.

The Implications of the Findings for Social Capital Research

Through the application of the embeddedness framework, this study has also demonstrated the limitations on mainstream research into social capital. Specifically, the findings here lead to the contention that social capital is too narrowly defined and operationalized. In general, social capital is viewed as manifest in social connections, systems of mutual assistance, or norms driving collective economic behavior. Each of these components is inherently structural and this is a major limitation on social capital's usefulness to development practitioners. The results of this study, when combined with the ideas behind the concept of embeddedness, have led to the following alternative definition or description of social capital:

Social capital is a dynamic social characteristic whose quality and extent are determined not only by history, culture, civic norms, and established routines and networks, but also by the capacities, competences, and motivations of individuals in a community or region. Without dense, extended, and flexible social structures *and* competent, trusting, and outgoing agents, social capital cannot effectively promote accountability, enhance efficiency, and facilitate innovation in regions.

By integrating individuals and society more explicitly, this conceptualization of social capital encourages a more thorough approach to its study.

In applying such a definition, it is imperative that scholars link the structures of social capital to the means through which these are created. In doing this, it is vital that

our interpretations of regional accumulations of social capital transcend static historical, political, and cultural endowments favoring its creation and shift more toward an analysis of the on-going processes leading to or preventing its development. Trust, as previously noted by many (e.g., Putnam 1993, Fukuyama 1995, Lyon 2000), offers an important link to such processes and a window on the cognitive factors that drive individuals to act outside of narrow groups and strict social hierarchies in building relations across social, geographic, political, cultural, and economic divides.

At the present, most descriptions or accounts of social capital are excessively structural. These conceptualizations devalue the role of agency by generalizing behavior based on notions that people will act collectively and build social capital provided there are tangible and clear “cost” decreases associated with collective action. Motivations (beyond the price or cost mechanism), desires, egos, identities, self-representations, and capacities for action are marginalized through such analyses and we are left with an incomplete picture of how individuals build social capital. In essence, the concept is relegated to a black box model where the “ingredients” (e.g., democracy, free markets, education, and civil society) go in one side and social capital pops out on the other. Trust, although typically included in conceptualizations of social capital, is used only to indicate the presence of collaboration and cooperation, not as a dynamic driving force behind their development. Trust becomes more useful to our conceptualization of social capital when we examine the mechanisms behind its construction. Specifically, as Platteau (1994a, 1994b) notes, it is the shift in trust mechanisms (as evidenced in morality shifts) that reflects the shift from a traditional economic structure to a more

advanced and, consequently, innovative economic system (i.e., one having more trust and social capital among firms and in industries).

This is not to say that history, culture, political systems, and other structural factors are not important for social capital creation, they are, in fact, crucial to the process. The argument here is that by focusing excessively on these variables and conditions, many are bypassing a basic reality about the process: *that social capital is created through the actions and feelings of individuals*. Structures are crucial because they are imposed on individuals and because they infuse ideas, roles, norms, and rules into cognitive processes. However, we need to better understand the ways in which these structures are interpreted and the means through which social innovation – such as a shift from limited-group morality to generalized morality – occurs. We know that change occurs and that evolution is reflected in structural factors, but we have much less of an understanding as to how individuals drive the direction of social change and how they create the new structures that continuously emerge from within any society.

As is demonstrated here, trust mechanisms, when operationalized explicitly and empirically, offer a useful inroad in our unveiling of social capital's mysteries. An individual's perceived capacity to trust reflects his or her negotiation process with society. These negotiations are perpetual, dynamic, and not simply about rational or sub-rational, yet predictable, responses to structural signals. Instead, trust is an indicator of one's confidence not only in society, but also in him or herself. These negotiations and factors lead to the development of moral values and beliefs that, in turn, greatly influence the kind of social relations individuals engage in. For example, it is apparent that some individuals develop generalized forms of morality (e.g., maximalists), as reflected in their

use of macro-level trust and wider-ranging networks, while others (e.g., minimalists) maintain limited-group forms of morality that lead to more narrow networks and little or no use of macro-level trust mechanisms.

The results of this study also support a contention that social capital should be viewed as a firm specific and regionally bound influence on innovation and economic development and as an indicator of what Maskell and Malmberg (1999) consider a region's institutional endowments. Such endowments are not easily changed nor substituted for through other production factors, instead they are vital social, political, and cultural assets that enable the embedding of innovative economic activity in a region, community, or place. A region's endowment of social capital is a key influence on long-run processes of economic and technological change, an important factor influencing the types of industries in which a region might gain competitive advantage, and a reflection of the quality of the *milieu* where entrepreneurs compete, communicate, and innovate. Because of this, it is critical that we understand not only what successful endowments of social capital look like, but that we also deconstruct the mechanisms through which regions, firms, and individuals create improved stocks of them. Once again, process should count as much as the final product – in this case social capital.

Entrepreneurs, as agents of change, are prime examples of the importance of individuals in the creation of social capital. Entrepreneurs and their firms become more competitive when they build social capital through dense business networks and relations of trust across a broad spectrum of people and places. By examining the levels and mechanisms of trust used by these individuals, we are able to unveil and deconstruct the social capital creation process. Moreover, and perhaps more important from a practical

standpoint, this kind of analysis contributes to our understanding of how industries and regions accumulate the competences necessary for effective and sustained development.

Lastly, it is important to stress that entrepreneurs are economic agents who generally prefer individual control not collective action in their business activities. This consideration is often overlooked in the stampede for participatory forms of development in rural and urban Africa. Social capital is thus not likely to develop among firms, industries, and regions if the needs of creative individuals such as entrepreneurs are ignored by policies promoting or enforcing collectivization for groups of businesspeople. Development professionals can better target entrepreneurs not through the imposition of structures for collective action but, rather, through policies that seek to ameliorate the conditions preventing the production and reproduction of trust in African markets and industries. If entrepreneurs are empowered to trust more readily, they will, in turn, be able to contribute more widely to social capital. The trick is to let entrepreneurs be leaders while encouraging them to facilitate the creation of collective action systems that provide improved access to information, ideas, and other resources. If these collective structures are created endogenously and independently, it is more likely that they can and will be sustained for the long term.

The Implications of this Study for Industrialization in Mwanza and East Africa

Accurate predictions about East Africa's industrial future are not easy to make though the findings of this study. As structural adjustment continues and market liberalization accelerates, manufacturers in the region will more than likely continue to face extreme limitations on their abilities to compete against imports locally and their capacities to export globally. The obvious constraints remain significant and most

apparent: appalling infrastructure, poor market development, low productivity levels, enormous human welfare issues, and a lack of capital for financing new and existing ventures. Despite these material and welfare constraints, there are success stories in cities such as Mwanza. These cases offer insight into how success is achieved and how industrialization progresses despite the enormous constraints on firms and industries. To understand what works best, it is imperative that scholars carefully contrast successful ventures with failed or struggling enterprises.

The typology developed in this study – of minimalists, pragmatists, and maximalists – allows for such comparison by segmenting firms in relation to their social competences. The typology demonstrates, in general, that the most socially competent managers run the most successful firms. In essence, the categories can be viewed as being representative of different entrepreneurial strategies. As is the case with regions, firms can become “locked-in” to these strategies and unlearning old ways and habits can be as difficult as learning new ones (Grabher 1993, Maskell & Malmberg 1999). In applying the typology to development policy, it is possible to identify firms more likely to create positive spillover effects through targeted industrial policies and programs.

Beyond helping us select the “winners”, such a typology can help us understand what prevents firms from becoming more socially competent and innovative. In Mwanza, a lack of macro-level trust is particularly problematic and relates to the failure of formal institutions (e.g., government or the judicial system) to protect business interests and help develop markets. This failure hinders the bridging process as there are few fair, efficient, and functional substitutes for micro-level trust that will enable the more widespread use of macro-level trust. Instead, close, personal, and dyadic relations

are preferred by most (minimalists in particular), while many of those having outside connections (e.g., some pragmatists) depend on narrow ties through corporate, ethnic, or family networks. These narrow ties reduce uncertainty and create accountability without a dependence on formal institutions such as the police or government. Although the short-term benefits of using such networks may be positive and significant, these relations tend to stagnate change and innovation through their narrowness and lack of intercommunity links. Without substantial reform in the legal system and earnest support of manufacturing (both large and small-scale) from the Tanzanian government, most firm owners will continue to have little incentive for improving their social competences and most will likely remain locked-in to narrow networks and low-trust strategies.

Stated another way, the lack of coherent policy in support of industry and the failure of the Tanzanian government to reach out to manufacturers means there is little impetus for social capital creation by entrepreneurs and businesspeople, particularly those managing larger-scale or foreign-owned firms. Many of these large-scale firms, especially those linked to corporate structures from outside Mwanza or East Africa, prefer to internalize their business relations within the corporate hierarchy and depend on few local individuals or enterprises. Moreover, managers of many of these firms have little interest in building intracommunity links beyond those associated with narrow religious or ethnic communities and customer relations.¹ The social disconnect observed in such larger-scale firms is of great concern as Tanzania's economy rapidly opens to foreign investment (FDI). The overall benefits of FDI may be severely limited if firms such as these remain weakly linked to the contexts where manufacturing operations exist.

¹ Some of this disinterest has to do with the fact that most managers of these corporate satellites are on short-term (less than 5 years) contracts and are planning to return to their countries of origin as soon as the contract expires. In essence, there is little commitment to the community.

Without assurances from the state that their assets and interests will be protected, FDI-based firms will continue to expend little effort trying to embed their activities in the local context. Instead, the focus is be on short-term profitability, not the long-term creation of an innovative industrial *milieu* or cluster. This short-term focus discourages local investments in infrastructure, education, training, and health programs since such investments may have low rates of return when compared to production and marketing today. Moreover, the ability of foreign firms to “pull out” of the production facility on short notice remains a constant threat to local economic stability and long-term industrialization in cities such as Mwanza.

Despite these limitations, there is potential for industrial development in the region provided the state takes an active and more positive role in its facilitation. As liberalization continues, competition with imports increases, and technological change in Tanzania progresses, it appears likely that more firms will rely on wider-ranging relations for information and market access, provided the state supports such bridging activities through improvements in the legal institutions necessary to ensure accountability in business transactions. If legal reforms are successful and accountability increases, it is likely that attitudes among more businesspeople will begin shifting from limited-group forms of morality to generalized forms. Macro-level trust mechanisms can become more commonplace and the region’s institutional endowments will improve.

Changes in the nature and extent of macro-level trust will not come easily however. First and foremost, there is a need for extensive reform of government and legal institutions at the local level. Local police and municipal government officials must be retrained, reeducated, and given incentive to take on a more positive role in building a

civil society. Presently, too much of the culture evident in these institutions comes from a shared belief that there are inherent and extensive rent-seeking privileges associated with political and military power. Moreover, there is an implicit sentiment among many officials that there should be no other group more economically powerful than the state. The repressive nature of the police is perhaps the most egregious example of what limits trust in Tanzania. Unless there is substantial reform in police institutions – focused first on the local level – there is little hope that entrepreneurs and businesspeople will develop widespread and/or stronger beliefs in macro-level mechanisms of trust. In sum, if social and economic accountability can be increased through effective governance and policy, the benefits of using narrow and often ethnically divisive networks for business may be reduced and more innovative social relations and structures can emerge.

There is a desperate need to incubate better relations among firms in Tanzania's industrial sector. Economic liberalization and structural adjustment are accelerating the pace of economic change and forcing local firms to adapt rapidly to new forms of competition. Transnational corporations and cheap imports from Asia and the Middle East are the dominant expression of globalization in Tanzania. As these firms and goods flood markets, many local firms fail as they are unable to compete with the outdated technologies, limited formal business skills, and inadequate financing mechanisms available to them. Moreover, when foreign firms establish manufacturing operations in Tanzania there is little local capacity building as most Africans are hired with the primary intention of filling low-skill jobs and keeping costs down. Managerial positions remain largely in the hands of foreign nationals and there are relatively few opportunities for local residents to advance. Without endogenously driven and entrepreneurial local

industries, Tanzania's economy will remain overly dependent on primary product exports and natural resource extraction for foreign exchange. There will be little local capacity in industry and this will have long-term effects on the country's ability to develop its economy.

Improvements to the industrial development process in Tanzania can only be realized if business and government create common ground and build innovative relationships with one another. Entrepreneurs, with support from the state, must play a critical role in the liberalization and structural adjustment process. In particular, the state should support entrepreneurs having socially outward orientations while giving them the freedom to develop their firms independently. By supporting entrepreneurship, more efficient and effective business networks and economic institutions can emerge. This, in turn, will build social capital and increase the potential for export-oriented manufacturing in cities throughout Tanzania. For government institutions to aid the process, they must reward openness, enhance flexibility, build trust, and encourage innovativeness among manufacturers.

Future Directions

The findings of this project have brought with them many new questions and ideas for future research. Beyond issues of verification and validity, the ideas developed here raise questions and bring to mind other facets of development research worthy of further exploration. From these concerns and questions come five recommendations for future research. First, there is a need for longitudinal and multi-contextual analyses that apply the conceptual ideas developed here. Second, future research should explore the impact of FDI on industrial development by assessing the "embeddedness" of foreign-

owned manufacturing operations in Sub-Saharan Africa. Third, there is a need to examine how economic agents respond to the imposition or availability of externally imposed collective-action institutions such as microcredit banks and rotating savings and credit associations (RoSCAs). Fourth, researchers should more closely examine the mechanisms of trust building in business relations in order to get beyond rough categories such as micro, meso, and macro-level trust. Fifth, there is a need for a more integrated model of entrepreneurship that situates entrepreneurs in specific economic, social, cultural, and political contexts and explores more precisely how successful businesspeople create, interpret, negotiate with, and innovate social institutions.

There is desperate need for longitudinal and comparative studies into the social dimensions of entrepreneurship and industrialization. Longitudinal studies are particularly useful and it is hoped that the sample of firms used in this research can be explored once again in the future. This type of research is crucial for answering questions about how changes in individual social competences occur, how trust mechanisms evolve, and whether or not firms having the most outward orientations truly do outperform introverts over the long run. Moreover, longitudinal approaches are needed to help us more fully understand how structural adjustment policies play out over time and at the local level. Comparative studies are also vital in that they offer an opportunity to demonstrate similarities in the means through which networks are constructed and trust is established. These kinds of studies can also help identify the constraints associated with the importation of collective action systems from one context to another.

Studies on the social and innovation-related impacts of FDI will also be worthwhile endeavors in the future. In Tanzania, foreign capital is most pronounced in the primary sector of the economy (e.g., mining, fishing) and foreign firms are common sights in cities like Mwanza. How these firms and the foreigners managing them interact with local social, political, cultural, and economic structures is an important question that needs to be explored as the pace of FDI accelerates. Gibbon's (1995, 1997a, 1997b, 1998) numerous studies on commodity chains in Tanzania are an excellent starting points but they do not sufficiently deal with issues such as how these companies influence social capital and how their managers learn to trust locally. Scholars need to examine the operations of these firms to better understand if and how they are trying to integrate themselves locally, what the obstacles to this integration process are, and how and which local residents obtain access to the positive spillover effects associated with these investments. Through the knowledge developed in FDI-related research projects, it is hoped that governments undergoing liberalization can manage FDI more equitably and target investments more appropriately.

Aid projects and programs promoting collective action have been commonplace since the arrival of participatory development paradigms and the concept of social capital. These approaches are grounded in the belief that participation and effective collective action can be facilitated if the right structures and programs are made available to businesspeople, farmers, women, etc. Unfortunately, what remains unclear about these initiatives is if and how they actually create trust and social capital sustainable beyond the lifespan of the project or development funding. Even in places where these projects appear successful, it is unclear how much trust and social capital were already in place

prior to the program's imposition. These questions are of particular relevance to entrepreneurship and industrial development as donors continue to push microcredit programs and village banking systems as viable financing alternatives to conventional instruments. Beyond the trust and social capital issues related to these initiatives, there are other concerns worthy of future research. In particular, there are questions as to whether microcredit can benefit manufacturers (not only traders) and there are concerns about the paradox between group-lending schemes and the individual achievement associated with entrepreneurship.²

Trust is also a rich topic for future research. Although the concept has been explored extensively and from a wide variety of perspectives, there is still significant disagreement over trust's composition, its creation, the factors causing it to disappear or reappear, and about its precise contribution to social capital formation and economic development. Superficially, the value of trust is clear and tangible. The costs of doing business can be reduced, risk taking may be facilitated, and cooperation can become more commonplace within a society. Despite these general notions, however, there is much to be learned about the processes behind the creation of trust, the different ways in which individuals manifest and utilize it, and the ways in which policies, programs, and laws can enable its creation. The embeddedness framework presented here offers one starting point among many for future explorations into trust. Regardless of the conceptualization and approach, future research into trust should focus on micro-level

² In the sample of manufacturers used in this study, only one owner of a microenterprise participated in a group-lending program. Through interviews with the managers of three village banks in Mwanza, it was found that most of the participants are traders or hawkers having little need for extensive capital investment. Most manufacturers are unable to benefit from the small loan amounts made available through village banks as the returns on capital investments in manufacturing take longer to accrue than the required pay back period for most microcredit loans.

interactions, not solely macro-level institutions, historical factors, and broad behavior patterns (e.g., voting trends, levels of civic participation).

Finally, it is hoped that future research will lead to a more integrated framework for studying entrepreneurship. What is needed is an approach that brings together agency factors, such as representations and constitutive elements, with structural factors, such as social rules, routines, norms, and roles. In particular, there is a need to better understand the role of cognition (as manifest in trust mechanisms, desire, ego, motivation, self-representations, etc.) in the innovation and knowledge creation process. These factors, although more difficult to survey on a large scale, are crucial influences on a businessperson's perceived capacity for action and critical driving forces in entrepreneurship. Moreover, they are reflections on the *milieux* from which firms and industries emerge and can tell us much about a region's potential for innovation. By integrating these factors together in an institutional framework, we can better account for those competences and capabilities that facilitate and enhance entrepreneurial behavior in developing regions.

The time is right for such research as economies in the developing world rapidly liberalize and are more exposed to the vagaries, whims, and opportunities associated with the global economy. The traditional rules for, or steps in, industrialization (e.g., the dynamics of industrial development as described by Rostow, Gerschenkron, Kuznets, and Marx) cannot be simply applied to understanding industrial development in regions like Sub-Saharan Africa. Through technological change and ideological convergence, the global economy has become more powerful in shifting markets rapidly and in helping to distribute information more widely. In such a context, regions cannot depend solely on

static investments in and accumulations of financial, human, and physical capital to drive industrialization and enable innovation. In today's world, macroeconomic factors are becoming less important than the sub-national attributes, social conditions, and institutional endowments that facilitate the creation of innovative or entrepreneurial *milieux*, agglomeration economies, growth poles, and clusters of successful firms. Ultimately, it is individual businesspeople that construct these endowments and create more competitive firms, industries, and regions. If we are to fully understand the social factors driving industrial development and change in Sub-Saharan Africa, it is imperative that we put individuals front and center in our analyses and focus less exclusively on the patterns of behavior or conventions expressed in business networks and social institutions. Instead, it is through an understanding of the processes that created such patterns that we can better understand how industrialization progresses and how the process may be best facilitated in the region.

APPENDIX A INTERVIEW GUIDE

Module I: Research Overview and Statement of Consent

I am conducting research titled: "Social Relations and Entrepreneurship in Mwanza, Tanzania". I believe this subject matter is very important for social scientists to explore in order that they better understand the social dynamics of economic development in East Africa. Through this understanding policies and programs may be able to better account for the realities and dynamics of doing business in the region. Moreover, this study hopes to gain a stronger understanding of the business climate and economic conditions in Mwanza -- a city that is rapidly growing and one that will play an important role in Tanzania's future development.

This questionnaire is being used for doctoral (Ph.D.) research through the Department of Geography at the University of Florida in the United States of America. I am working independently in Mwanza but have received formal research clearance through the Tanzanian Commission for Science and Technology (COSTECH) in Dar es Salaam.

• Respondents are read the following prior to starting the questionnaire:

"You have been asked to participate in a study of how businesses operate in Mwanza, Tanzania. You will be asked to provide information about your business, the ways in which you make products, the labor and tools you utilize, your relationship with other business owners, and about other factors that influence the success of your business. There is no obligation for you to participate in this study and you will not be compensated monetarily for your time in cooperating with this study. You, your business, and your family will not be harmed because of your participation or non-participation in this study or because of any answers you might give during the interview process. You can decline to answer any questions asked of you, you can stop the interview at any time, and you can ask to not be included in the study at any time after the interview or interviews are completed. Your anonymity will be protected at all costs and no persons in Tanzania or elsewhere will have access to this information except with your written permission or without any mention of your name or the name of your business. If you have any questions or concerns you may express them at any time and they will be addressed to your satisfaction or the questionnaire may be terminated."

"Do you understand the conditions as stated above?" (yes or no)

“Do you consent to participate in this study provided these conditions are met and fully abided by?” (yes/no)

If consent is granted, the interview continues.

If you have any questions in general or are having difficulty with any of the questions, please contact me by phone at 0811-602058 (Mobitel number) or via e-mail at murphy@geog.ufl.edu.

I thank you very much for your assistance in my research project.

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University of Florida
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Mwanza, TZ
(0811) 602058

Module II: General Information and Background

A: General Demographic and Spatial Information:

- 1) Name (Record separately) -- Identity code: _____
- 2) Age: _____
- 3) Marital status: _____
- 4) Number of children (if applicable): _____
- 5) Ethnicity: _____
- 6) Languages spoken: _____
- 7) Home village/region: _____
- 8) Additional locations of business and/or shops: _____
- 8a) Do you own a home in the rural/urban areas?

B: Training -- Human Capital and Social Learning:

- 9) Furthest grade level reached: _____
- 10) Post-Secondary education – when and where?: _____
- 11) Vocational or trade training?: _____
- 12) Previous work experiences and duration (prior to this company): _____
- 13) Industry specific experience and training: (How did you learn to manage manufacturing work?) _____
- 14) Parents occupation/trade?: _____
- 15) Socioeconomic status as a child (poor/middle/wealthy): _____

C: Business start-up and years in business:

- 16) When did you start manufacturing (year)?
- 17) Why did you start manufacturing?
- 18) What was your initial source of financing that got you started in manufacturing?
- 19) Any stops and/or re-starts? When, why?

Module III: Business Routines and Conventions

- 20) How do you determine what and how much product to make? For example, do customers place orders or do you simply know the market and what is being demanded? Where do you get your product designs, recipes, or formulas from?
- 21) Where do most of your orders for product come from? Where are your markets located (where do you sell your product)? Do your markets vary during the year and/or seasons?
- 22) How do you acquire the money to purchase the material inputs (e.g. timber, food products, scrap metal) for production? Do you obtain credit if it is needed for production – if yes, where and how often?
- 23) How do you acquire the inputs (e.g. food products, timber, scrap metal) necessary to make your products? Do you purchase these wholesale or retail? Do you have a warehouse or store?
- 23A) How do you acquire and organize the labor necessary to make product? How do you ensure an adequate supply of labor?
- 24) In brief, how you manufacture your products? Differentiate between different quality levels if appropriate.
- 25) Do you manufacture your products one set at a time or is your factory more like an assembly line?
- 26) Do you deliver your products to customers directly (if yes, what means of transport do you use normally)? Do you export product outside the Mwanza region? If so, where do you export to?
- 27) Do you market or advertise your products? If yes, how and where? What media do you use?

28) What aspect of or step in your production process is most difficult for you? (in other words, which step limits your ability to make your manufacturing business more profitable? How and Why?

29) What do you do with the profits you make in doing business? Do you frequently reinvest profits into your products or production business or do you use them to diversify your manufacturing activities?

Module IV: Business Performance Information:

The following questions (30-37) are intended to get an idea about the performance of your manufacturing business since it started.

30) Tell me about how your level of production (units of product per day, week, month, year, etc. whatever you prefer) has changed since you started the manufacturing business? (Initially is the year you started doing manufacturing work):

Units per week initially:

Units per week today:

31) Changes in sales volume of product since you started?

Sales per week initially:

Sales per week today:

32) Changes in the # of employees used exclusively in your manufacturing business?

Manufacturing plant employees initially:

Employees today:

33) Changes in the diversity of products produced?

Range of product designs produced initially:

Range produced today:

34) Changes in the markets sold to (e.g. local, national, regional international, global international)?

Markets sold to initially:

Markets sold to today:

35) Changes in factory size and location?

Size and location initially:

Size and location today:

36) Changes in the level of profitability of the business (monthly or weekly profits for the product sector of the business? (Note: there is no need to provide detailed numbers, I only need an estimation of whether or not profits have increased or decreased since you started)

Profits per week or month initially:

Profits per week or month today:

37) Changes in the production technology (e.g. all by hand, some machines, etc.) used to produce your food products?

Technology used initially:

Technology used today:

Module V: Innovations and Technological Changes

38) Tell me about any changes in the way you do business, make your products, trade, etc. that have improved or harmed the success of your business in recent years (these are things that have helped you to adapt or prevented your business from adapting to a changing business or economic climate). Use the list below as a guide. You do not need to respond to all the categories listed, only those where a change has occurred since you started doing manufacturing.

38a) Supplier relationships or your ability to access inputs for production (e.g. raw materials, tools):

38b) Your ability to access to credit and capital for making investments in your business:

38c) Your ability to access to infrastructure (e.g. electricity, water, roads, telephone):

38d) Your ability to access to old and new markets for selling:

38e) Are there changes in your labor/employee relations or the way you use of your work force:

38f) Are there changes in your choice of production technologies:

38g) Are you able to access more or less information about markets, new designs, business ideas, management ideas, etc.:

38h) Are there changes in the diversity of products you produce:

38i) Have you taken over any aspects of the production process that you previously relied on sub-contractors for?

38j) Do you share space, tools, labor, etc. with other firms or entrepreneurs?

38k) Are there any other changes to the way you do business that you would consider to be innovations or obstacles to having a better business?

39) Would you describe your manufacturing business as profitable in recent years? Could it be more profitable? If so, how?

40) How large would you like your manufacturing business to become in the long-term (greater than 5 years) future? In the next 5 years?

41) Is there a limit to the size that you would like your manufacturing business to grow to? How large would that be?

42) Can you tell me any particular ideas you have that will help your manufacturing business to grow and expand?

43) Can you see yourself opening up another factory or shop in the future? If yes, who would manage the new branch (not the entire company)?

Module VI: Social Relations and Business Connections

In this section of the questionnaire, I am trying to get an understanding of the extent and kinds of relationships important for your business to succeed. I do not need to know the names of any people or the names of their particular companies. However, I would like to know how many of these kinds of people you know, if you know them well or not, if you spend time with them outside of business dealings, and whether or not you trust them.

If you know many people in a particular category, tell me how many you know very well and how many you know only a little. For each category, you should provide a score for each of the following:

- a) How well do you know them (Use a 0 to 2 scale: 0=not at all or very little; 1=somewhat, 2=very well)?
- b) Would you consider yourself friends or more than just business partners with this person? In other words, do you spend time with these people or this person outside of work. (Score your connections using a 0 to 2 scale: 0=just business, 1=some or occasional time together outside of business, 2=extensive or frequent time together outside the business)
- c) How much do you trust these people? (Use a 0 to 2 scale: 0=not at all or a little only; 1=an average amount; 2=very much trust)

The connections to score are listed below:

Scores for Relations (see questions above)

# people	a (how well?)	b(after work?)	c(trust?)
• Input suppliers			
• Other suppliers (e.g. of tools, parts, machines)			
• Customers (only permanent and/or regular ones)			
• Transporters/Shippers (specify if by foot, lorry, or boat)			
• Full-time employees			

people a (how well?) b(after work?) c(trust?)

• **Temporary labor (subcontractors)**

(regular workers used when having extra manufacturing work)

• **Contacts working in Govt. agencies**

(Municipal, regional, or national govt.)

• **Contacts working for banks**

• **Contacts working for NGOs**

• **Contacts with other businesspeople in your industry (in Mwanza only)**

• **Contacts with other businesspeople in your industry (outside Mwanza only)**

• **Contacts with other businesspeople (in Mwanza)**

(Do not include any business people in your industry)

• **Contacts with other businessmen (outside Mwanza)**

(Do not include any business people in your industry)

Module VII: Open-ended Questions on the Importance of Business Relationships

This portion of the interview will try to determine how important business contacts and social relations are perceived by businesspeople in Mwanza.

44) Is it important to develop a relationship with your suppliers, competitors, customers, employees? If so, which ones are most important and why?

45) How important are your business connections to the success of your business? (Scale: 0=not at all, 1=a little important, 2=important, 3=vital/essential). How and why?

46) When starting a business relationship with someone (not a customer but a supplier or business contact), which of the following factors is most important in encouraging you to do business with someone new? If price/cost is your first concern, what is second to you?

- a) *The price/cost of this person's services or products*
- b) *The quality of this person's products, services, or information*
- c) *Their reliability or the person's honesty*

- d) *The person's reputation*
- e) *The person's wealth*
- f) *The person's ethnicity*
- g) *The person's home region*
- h) *The languages the person is able to speak*
- i) *The person's connections to other business people*
- j) *Other*

47) Do you change suppliers, employees, or business contacts often? If yes, when and why?

Module VIII: External Factors Influencing the Success of the Enterprise

The goal here is to understand what other issues (i.e., external factors) have influenced the business environment in Mwanza.

48) Have government agencies (local, regional, or national) directly and/or indirectly related to industrial development in Tanzania helped or harmed your manufacturing business in recent years (e.g. taxation agencies, environmental agencies, police, political parties, etc.)

49) Have any particular government policies (liberalization, SAP, currency and financial markets, FDI, parastatal reform, etc.) influenced your business in any way? If so, which ones have had an influence and how have they helped or hurt your manufacturing business?

50) Have any foreign aid policies and programs (e.g. through United Nation's orgs., World Bank, other donor programs/projects, bilateral donors, etc.) influenced your business in any way? If so, which ones have had an influence and how have they helped or hurt your business?

51) Do foreign or world markets (e.g. those for minerals, fish, crops) influence your manufacturing business in any way? Be specific about which markets are most important for your business?

52) Are there any other external factors that influence your business? What are they and how do they influence your manufacturing business?

Module IX: Open-ended Questions

53) Is it important that you have common values and beliefs with those people you do business with? In what way? Why? Does this influence your business relationships if your values/beliefs are not in common?

54) Is trust important to you? Why? Is it essential for you to conduct your business?

- 55) Will you do business with someone you do not trust? When and why?
- 56) When/how do you know that you can trust someone?
- 57) What kinds of people do you distrust? Why?
- 58) If it were possible, would you prefer to have written contracts for all your business dealings? In particular, with suppliers or employees? Why? Why not?
- 59) How do you ensure that you do not get cheated in business dealings?
- 60) What do you do if someone cheats you in a business dealing? Do you do business with that person again? Do you tell others about your experience with them?
- 61) What makes a another manufacturing business or business owner a strong competitor in your eyes?
- 62) What are the basic personality requirements for being successful in this industry?
- 63) What language do you prefer doing business in? Why? If someone cannot speak it, does it influence your business dealings with that person?
- 64) Who taught you how to do business? Did you have any important role models when you first started -- how did you meet this/these person(s)?
- 65) Where have you gotten most of your new business ideas or innovations from?
- 66) Who are those people who have been most influential on your business operations and how did you get to know them?
- 67) Do you believe that a business person needs to be socially adept or socially capable in order to be successful in business here in Mwanza? If no, why? If yes, why and in what ways must one be socially adept?
- 68) What kinds of social activities are particularly important for keeping in touch with changes in the business climate and local markets? How often do you participate in these activities? Are after-work activities more or less important than during-work social activities?
- 69) What are the most important personal characteristics for a good business person to have (in Mwanza)?
- 70) Are there any business people (here in Tanzania or elsewhere) whom you admire greatly? Why?
- (Do not write any names of individuals)

71) Is negotiation important in your daily business activities? If yes, what are the characteristics or negotiation habits of a good negotiator?

72) Are current local or national regulations, policies, and/or laws (including those related to taxation) harming or helping your business? How? Do any laws and/or regulations help you enforce contracts and protect your business interests?

73) Are there any changes to the laws, policies, and/or regulations that you think will help your business? What are they? How specifically will they help you? Can you see them changing in the near future? If not, why not?

74) What does managing your own manufacturing business mean to you? Why is it important for you to run this business yourself?

75) Is there anything else you'd rather do for a living? Why?

76) What motivates you the most in your daily business activities? What is the most important thing driving your desire to succeed?

77) Is there something you wish you could do better in your business? What is it? How are you trying to improve the situation at the present time?

Module X: Levels of Trust

Listed below are six different activities you can do with any person. I would like to understand which of these activities requires more or less trust than the others.

To do business together with someone on a "cash cash" basis – an equal trade of cash for merchandise (eye for an eye)

To exchange information about the market or the competition with someone

To exchange personal information (in detail) with someone (e.g. to discuss matters of health, private matters, or to discuss in detail about things at home)

To share tools, supplies, infrastructure, capital, or technology with someone

To discuss new business ideas or innovations you have developed or invented with someone

To loan money or extend credit to someone

Rank the items listed above in increasing level of trust – The least amount of trust should be the activity listed next to number 1 (below) and the item requiring the most trust should be placed next to number 6. Please only use the items listed above in the list you make below.

1:
(Least Trust)
2:
3:
4:
5:
6:
(Most Trust)

APPENDIX B DATA CODING SPECIFICATIONS AND CODING HIERARCHY

Coding Scheme for the Trust Variables

Trust

Trust is an independent variable coded for when references were made to one or more of the following: the means through which a person can be trusted, the reasons why a person cannot be trusted, the types of people who are and who are not trustworthy, and the ability of the respondent to protect him or herself from someone trying to cheat in a business deal. Trust was coded for within three sub-categories: micro-level, meso-level, and macro-level trust in accordance with the work of Humphrey and Schmitz (1998).

Description of coding methods:

Trust was coded for in the text when: 1) a respondent discussed who, how, and when he or she trusts someone; 2) a respondent made reference/inference to being trusted - as in getting credit from a supplier; 3) a respondent referred to a circumstance in his or her business dealings when it is necessary to rely on another person (i.e., have faith in that person); and 4) when a respondent discusses being cheated, if they discuss ideas like honesty, truthfulness, faithfulness, and/or issues of accountability. The codes used for each of the scales or levels of trust (micro, meso, and macro) are detailed below.

The following categories were coded for under the trust variable:

- (1 1) TRUREP Representations and symbols of trust
- (1 2) TRUCON Constitutive capacities for and ideas about trust
- (1 3) TRUREG Regulative (structural) elements of trust
- (1 4) TRUNOR Normative aspects of trust
- (1 5) TRUSPA Spatial aspects of trust
- (1 6) TRUMEC General mechanisms of trust
- (1 7) TRUMAC Macro-level forms of trust (detailed below)
- (1 8) TRUMES Meso-level forms of trust (detailed below)
- (1 9) TRUMIC Micro-based forms of trust (detailed below)
- (1 10) TRUMIN Minimal forms of trust (short-term, contractual)
- (1 11) TRULON Extended forms of trust (long-term, sustained)
- (1 12) TRUEXT Examples of trusting behavior
- (1 13) TRUEXD Examples of distrusting behavior
- (1 14) TRUOTH Other issues related to trust

(1 15) Final Final coding scheme used in data analysis

Micro-level trust codes

Micro-level versions of trust - trust based on personal experiences together or on one's experience with others (i.e., his or her reputation) in the business community. Coded for when the respondent referred to trust as being established through shared experiences, repeat transactions, or based on the competence and reputation of another person.

Codes used to indicate the use of micro-level trust mechanisms:

- (1 15 1 1) Use of tests and feelers to gauge trustworthiness
- (1 15 1 2) Trust by doing business together
- (1 15 1 3) Trust facilitated through conversations or time spent together
- (1 15 1 4) Trust facilitated by the quality of someone's work or their competence
- (1 15 1 5) Legitimacy from language, relations, behavior, or words (way of talking, expressions)
- (1 15 1 6) Reputations as trust identities
- (1 15 1 9) Legitimacy from quality of work, experience together, or service
- (1 15 1 10) Legitimacy from price, terms of business, or costs of production
- (1 15 1 14) Legitimacy from diversification or type of products and services offered
- (1 15 1 15) Legitimacy from a good reputation
- (1 15 1 20) Legitimacy through knowledge of market
- (1 15 1 23) Legitimacy from innovativeness
- (1 15 1 24) Legitimacy from markets accessed

Meso-level trust codes

Meso-level aspects of trust - ascribed characteristics of trust in Mwanza (e.g., ethnicity, appearance, religion, education level, languages spoken). Coded for when references were made to the use of such ascriptions or superficial (non-experiential) criteria as the means through which the respondent knows they can trust someone.

Codes used to indicate the use of meso-level trust mechanisms:

- (1 15 2 1) Legitimacy from wealth (capital as symbolized in wealth)
- (1 15 2 2) Legitimacy from ethnicity
- (1 15 2 3) Legitimacy from color or race
- (1 15 2 4) Legitimacy from religious belief
- (1 15 2 5) Religious groups as trust identities
- (1 15 2 6) Legitimacy from business location
- (1 15 2 7) Ethnic groups as trust identities

- (1 15 2 8) Legitimacy from size of factory, expansion, or from having machines (other forms of capital)
- (1 15 2 9) Education levels as trust identities
- (1 15 2 10) Capital levels as trust identities (factory size, machines, etc.)
- (1 15 2 11) Race as a source of trust
- (1 15 2 12) Legitimacy based on where or how the person lives
- (1 15 2 13) Family member as trust identity
- (1 15 2 14) Health problems, alcoholism, criminal record
- (1 15 2 15) Living area or region of origin as source of trust
- (1 15 2 17) Legitimacy through education level
- (1 15 2 18) Legitimacy from foreign sources (e.g., catalogs, NGOs, foreigners)
- (1 15 2 22) Legitimacy from family relations
- (1 15 2 25) Legitimacy through outside (general) sponsor

Macro-level trust codes

Macro-level trust was coded for when the respondent made reference to the use of the government or legal system to protect his or her business interests or when the businessperson viewed trust from a goodwill perspective. Goodwill perspectives stem from higher-order beliefs regarding the general goodness of human nature.

Codes used to indicate the use of macro-level trust mechanisms:

- (1 15 3 3) Faith in the police or courts to settle disputes
- (1 15 3 5) Beliefs of a higher order
- (1 15 3 13) Legitimacy from contracts, letters of credit, or pro forma invoices
- (1 15 3 21) Legitimacy from formal institutions (gov't, courts, police)

Coding Scheme for the Network Dependence or Density Variable

Network Dependence or Density

The network density and dependence code is used to account for a businessperson's social relations in the Mwanza manufacturing sector. These relations can be used for information, inputs, market access, financing, or any other needs deemed important for the success of the enterprise.

Description of the Coding Methods:

The variable was coded for when references were made to the use of relationships in business or when the respondent referred to systems of mutual assistance among firms and businesspeople. These references and relations were subdivided into four categories: input, output, inter-firm (e.g., competition), and institutional relations.

The following categories were coded for under the network variable:

- (5 1) NETPRI Primordial tie networks (family, kin, tribe, religion)
- (5 2) NETINP Input relations/networks
- (5 3) NETOUT Output relations
- (5 4) NETCOM Competitor or inter-firm relations
- (5 5) NETINS Institutional relations (e.g., state agencies, NGOs)
- (5 6) NETINN Other network relations worth noting
- (5 7) NETGAT Gatekeepers, key individual references
- (5 8) NETMUT Relations of mutual assistance
- (5 9) NETOPP Weak ties, opportunistic behavior in relations
- (5 10) Final Final codes used to compile the network density score

Codes used in the final assessment of networks (from category Final (5 10))

Input relation codes:

- (5 10 2 1) Networks to get inputs on credit
- (5 10 2 3) Networks for ideas, information, and designs
- (5 10 2 4) Networks for accessing machines or tools
- (5 10 2 5) Networks used to access labor (hiring connections)
- (5 10 2 6) Networks to obtain quality raw materials, parts, or inputs
- (5 10 2 9) Networks are important for investment capital

Output relation codes:

- (5 10 3 1) Network connections to build reputation or customer base
- (5 10 3 2) Network connections to wholesalers
- (5 10 3 3) Network connections to other Mwanza markets
- (5 10 3 4) Network connections to overseas markets
- (5 10 3 5) Network connections to other Tanzanian markets
- (5 10 3 6) Network connections to transporters or shippers
- (5 10 3 7) Network connections to NGOs or government for sales
- (5 10 3 10) Networks for vertical integration of production (tail end)

Competitor relation codes:

- (5 10 4 1) Networks with competitors for designs, ideas, or information
- (5 10 4 2) Networks with competitors to share resources, tools, or labor
- (5 10 4 3) Networks for price fixing or market control
- (5 10 4 4) Networks with competitors for personal (non-business) benefits
- (5 10 4 7) Networks with competitors important to get overflow work

Institutional relation codes:

- 5 10 5 3) Networks with government for loans, business development, infrastructure improvements, etc.
- (5 10 5 4) Networks with NGOs for business development, loans, etc.
- (5 10 5 6) Networks with religious groups as important for business
- (5 10 5 7) Networks with government for information or training
- (5 10 5 8) Networks with NGOs for information or training
- (5 10 5 9) Networks with government for legal matters
- (5 10 5 10) Networks with government (e.g., for infrastructure problems)

Coding Scheme for the External Link Variable

External Links

This code is used to isolate the different external connections that influence firms and enterprises in Mwanza. External links are based on geographic connections outside of the Mwanza area. These can be either business connections, family ties, or friendships and are distinguished mainly by the region where the connection is maintained.

Description of coding methods:

External links were coded for in terms of the different regions where the contact was identified. Regional categories included: Other Lake Victoria regions (excluding Mwanza), other Tanzania, East Africa (i.e., Kenya, Uganda, Rwanda, or Burundi), other Africa, Europe, Asia, and North America and other regions.

The following categories were coded for under the external link variable:

- (16 1) EXTMWA Other links within the Mwanza region
- (16 2) EXTOLZ Other links in the Lake Zone (Kagera or Mara regions)
- (16 3) EXTOTZ Other links in Tanzania
- (16 4) EXTEAF Other links in East Africa (Kenya, Uganda, Burundi and Rwanda)
- (16 5) EXTOAF Other links in Africa (outside of East Africa)
- (16 6) EXTEUR Links to Europe
- (16 7) EXTASI Links to Asia and the Middle East
- (16 8) EXTNAM Links to North America
- (16 9) EXTOTH Other business links not listed above.
- (16 10) Final Final coding scheme used for external links

Codes used in the final assessment of external links (from Final (16 10))

Other Lake Zone links:

- (16 10 2 1) Other Lake Zone market links
- (16 10 2 2) Other Lake Zone information or idea links

- (16 10 2 4) Other Lake Zone capital links (investments, loans)
- (16 10 2 6) Other Lake Zone input links

Other Tanzania links:

- (16 10 3 1) Other Tanzania market links
- (16 10 3 2) Other Tanzania information or idea links
- (16 10 3 4) Other Tanzania capital links (investments, loans)
- (16 10 3 6) Other Tanzania input links

Other East Africa links:

- (16 10 4 1) East Africa market links
- (16 10 4 2) East Africa information or idea links
- (16 10 4 4) East Africa capital links (investments, loans)
- (16 10 4 6) East Africa input links

Other Africa links:

- (16 10 5 1) Other Africa market links
- (16 10 5 2) Other Africa information or idea links
- (16 10 5 4) Other Africa capital links (investments, loans)
- (16 10 5 6) Other Africa input links

European links:

- (16 10 6 1) European market links
- (16 10 6 2) European information or idea links
- (16 10 6 4) European capital links (investments, loans)
- (16 10 6 6) European input links

Asian and Middle East links:

- (16 10 7 1) Asian and Middle East market links
- (16 10 7 2) Asian and Middle East information or idea links
- (16 10 7 4) Asian and Middle East capital links (investments, loans)
- (16 10 7 6) Asian and Middle East input links

North American and other links:

- (16 10 8 1) North American and other market links
- (16 10 8 2) North American and other information or idea links
- (16 10 8 4) North American and other capital links (investments, loans)
- (16 10 8 6) North American and other input links

Coding Scheme for the Performance Variable

Performance

This code accounts for the successes and failures of the business. It is a function of business performance and is used to summarize the "good" and "bad" things that have happened to the business since it was started (or as far back as he/she refers). In particular, there is concern with issues such as profitability, technological change, size and location of the operation, and the diversity of services or products provided.

Description of coding methods:

Performance is coded for by distinguishing between the success and failures in the firm. Success was coded for when an entrepreneur discussed positive changes/developments in his/her business. For failures, negative changes/developments were identified and coded. Successes and failures were subdivided into the following categories: production output and capacity, sales volume, number of employees, markets sold to, product diversity, size of shop and quality of location, profitability, and technological changes.

The following categories were coded for under the success and failure variables for performance:

(9 1) – Success codes:

- (9 1 1) SUCMEC The mechanism of success - how it was achieved.
- (9 1 2) SUCMEA The meaning of success (symbols, images, words)
- (9 1 3) SUCSPA The spatial aspects of success
- (9 1 4) SUCIDE Identities of success
- (9 1 5) SUCPRO Production successes
- (9 1 6) SUCSLE Sales successes
- (9 1 7) SUCPFT Profitability successes
- (9 1 8) SUCSZB Size or business (# of employees) success

(9 2) – Failure codes:

- (9 2 1) FAIMEC The mechanism of failure
- (9 2 2) FAIMEA The meaning of failure
- (9 2 3) FAISPA The spatial aspects of failure
- (9 2 4) FAIIDE Identities of failure
- (9 2 5) FAIPRO Production failures
- (9 2 6) FAISLE Sales failures
- (9 2 7) FAIPFT Profitability failures
- (9 2 8) FAISZB Size of business failures

(9 3) – Final codes for success and failure

Codes used in the final assessment of performance (from Final (9 3))

Success codes:

- (9 3 1 1) Increasing or strong sales
- (9 3 1 2) Increasing or strong level of profitability
- (9 3 1 3) Increase in number of employees
- (9 3 1 4) Expansion or improvement of existing production facility
- (9 3 1 5) Increase in markets accessed (e.g., through advertising)
- (9 3 1 6) Increase in number or diversity of products offered
- (9 3 1 7) New or improved machines or tools acquired
- (9 3 1 8) Improved location for manufacturing facility
- (9 3 1 9) General production system improvement relating to labor management or means of manufacturing
- (9 3 1 10) Increased speed of production
- (9 3 1 11) Vertical integration of production (e.g., transport, input acquisition, finishing of product)
- (9 3 1 12) Accessing outside (non-family) investment capital or loans

Failure codes:

- (9 3 2 1) Decrease in sales
- (9 3 2 2) Decrease in profitability
- (9 3 2 3) Decrease in number of employees
- (9 3 2 4) Decrease in size of shop or quality of infrastructure
- (9 3 2 5) Decline in the quality of shop's location
- (9 3 2 6) Decrease in extent of tools or machines (or a decline in quality)
- (9 3 2 7) Decrease in speed of production
- (9 3 2 8) Decline in markets accessed
- (9 3 2 9) Decrease in diversity of products manufactured
- (9 3 2 10) Unable to compete with imports
- (9 3 2 11) Less capital or credit available to or accessed
- (9 3 2 12) Less productive system of manufacturing goods

Coding Scheme for the Innovation Variables

Innovation

Used to describe the changes in the way business is done and goods are manufactured. Innovation was coded for based on the innovations a respondent stated having made. Innovations were divided into two key categories: dependent (responsive) and independent (creative). Dependent or responsive innovations are those achieved as a result of external influences that forced changes to occur in the firm's operations. For

example, responsive innovation might occur if a businessperson loses his or her lease on a workshop premises but then successfully relocates to a better equipped or located workshop. In general, responsive innovations are oriented toward a firm's short-term performance, not its long-term development. Independent or creative innovations, however, are those desired improvements to the firm that are independently achieved and driven largely by the desire of the businessperson to increase the long-term profitability of the enterprise. In general, responsive innovations are oriented toward a firm's short-term performance, not its long-term development. Independent or creative innovations, however, are those desired improvements to the firm that are independently achieved and driven largely by the desire of the businessperson to increase the long-term profitability of the enterprise.

Description of the coding methods:

Innovation coding was focused at identifying changes to the production system. Codes were applied to text where adaptations or improvements to a respondent's firm and production system were mentioned. These changes were classified initially as independent (no outside assistance used) and dependent (an external person helped in the investment).

The following kinds of changes in the production system were looked for and coded for in the interview responses and field notes:

- a) Acquisition of new technology or improvements to existing technology.
- b) New designs for products or diversification of the product line.
- c) Accessing new markets.
- d) Integration - vertically or horizontally - of the production system.
- e) Labor productivity improvements.

Expansion and survival orientations in firms were also distinguished by identifying the main reason behind an innovation or change in the production system. Expansion oriented changes are driven by a desire to improve the profitability of the business while survival orientations result when there are few options and the businessperson is forced to adapt or change in order to keep the firm operating.

The following categories were coded for under the innovation variable:

- | | | |
|-------|--------|--|
| (8 1) | INNDEP | Dependent or responsive innovations |
| (8 2) | INNIND | Independent or creative innovations |
| (8 3) | INNEXP | Expansion oriented tendencies |
| (8 4) | INNSUR | Survival oriented tendencies |
| (8 5) | INNSPA | Spatial aspects of innovations |
| (8 6) | INNOBS | Obstacles to innovation |
| (8 7) | INNOTH | Other innovation issues |
| (8 8) | INNIDE | Identities of innovation |
| (8 9) | Final | Final innovation codes used in the data analysis |

Codes used in the final assessment of innovation (from Final (8 9)):

Dependent or responsive innovations:

- (8 9 2 1) Adaptation to labor problems
- (8 9 2 2) Adaptation to forced move (new premises) or infrastructure problems
- (8 9 2 3) Increasing product line by copying designs out of catalogs, newspapers, TV, etc.
- (8 9 2 4) Increasing product line by subcontracting machines, labor, premises
- (8 9 2 5) Adaptation to shift in input access (more difficult or more expensive to acquire)
- (8 9 2 6) Adaptation to change in government policy (e.g., loss of parastatal business)
- (8 9 2 8) Increasing business activities through government or NGO assistance
- (8 9 2 9) Increasing business activities through family assistance

Independent or creative innovations:

- (8 9 1 1) Independent design development (through education, experience, or skill)
- (8 9 1 2) Use of sales depots or distributors
- (8 9 1 3) Production system modification to maintain profits, improve productivity or reduce costs
- (8 9 1 4) Distributing other products (not manufactured on-site)
- (8 9 1 5) Independent acquisition of tools or machines
- (8 9 1 6) Integration of input production at factory site
- (8 9 1 7) Increase in size labor force
- (8 9 1 8) Use of outside expertise (consultant, advisor) in workshop
- (8 9 1 9) Integration of activities with another business unit of firm
- (8 9 1 10) Increase in shop size or improved location (independent change)
- (8 9 1 11) Increase in speed of production
- (8 9 1 12) Use of formal marketing strategies to increase business

Coding Scheme Used to Assess Business Conventions in Mwanza

Conventions

These are the routines/rules of thumb used by business people to innovate, learn, share information, communicate, and to produce goods for sale. Conventions are expressed as

tacit understandings, roles, and scripts that are garnered through experience and collective information exchange. They are visible in the norms, rules, routines, and sanctions structuring the activities of firms.

Description of coding methods:

Conventions were coded for when respondents discussed the ways in which things typically get done in Mwanza's manufacturing sector. These routines and frameworks for action were further divided into the following categories: 1) labor conventions; 2) productivity conventions; 3) identity conventions; 4) participation conventions; 5) negotiation conventions; 6) learning conventions; 7) innovation conventions; and 8) other conventions. These data were used to identify and describe the three key relations (credit, reputation, and information) observed in Mwanza.

The following categories were coded for under the conventions variable:

- (3 1) CONLAB Labor conventions (How labor is used and managed)
- (3 2) CONPRO Productivity conventions (How the production system works)
- (3 3) CONIDE Identity conventions (how people are labeled and identified)
- (3 4) CONPAR Participation conventions (Think about group things)
- (3 5) CONNEG Negotiation conventions (Process of negotiation)
- (3 6) CONLEA Learning conventions (How learning occurs)
- (3 7) CONINN Innovation conventions (How innovation takes place)
- (3 8) CONOTH Other kinds of conventions
- (3 9) CONCRD Conventions of credit
- (3 10) CONSPA Spatial conventions

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BIOGRAPHICAL SKETCH

James Timothy Murphy was born in Teaneck, NJ, in August, 1965, and was raised in Hillsdale, NJ. After graduating from Pascack Valley Regional High School in 1983, Murphy entered The College of Engineering at Rutgers University in Piscataway, NJ. In 1987, he received a bachelor's degree in chemical engineering and was hired by BOC Gases in Murray Hill, NJ (then Airco Industrial Gases). Murphy would spend a total of five years at BOC as a project engineer and project manager. The bulk of his work entailed the design of pollution abatement systems for the converting industry (e.g., video and adhesive tape manufacturing) and management of the construction and installation of said systems. His project and work experience extended to China, South Korea, and Germany as well as to numerous domestic locations.


In 1990, Murphy took a two-year "sabbatical" from BOC and joined the United States Peace Corps. He was assigned to teach science and mathematics at Namitete Secondary School in Namitete, Malawi, and was a member of faculty there from 1990-1992. Murphy's experiences in Malawi were formative and instilled in him a desire to study development and environmental issues in Sub-Saharan Africa. In 1994, after two final years with BOC, Murphy entered the Urban and Environmental Policy program at Tufts University in Medford, MA. His master's thesis, titled "Sources of Influence and Policy Failures in East Africa's Rural Energy Sector," was completed in 1997 and evolved out of three months of fieldwork conducted in 1995 when Murphy interned at the Nairobi office of Intermediate Technology – Kenya (IT-Kenya). With IT-Kenya, he

traveled extensively throughout East Africa and interviewed managers of and participants in NGO-sponsored rural energy programs and government officials responsible for the energy policies affecting rural areas. An update on and summary of this research led to a recent publication, titled "Making the Energy Transition in Rural East Africa: Is Leapfrogging an Alternative?" (*Technological Forecasting and Social Change*, 68:2, pp. 173-193, 2001).


After receiving his master's degree from Tufts in 1997, Murphy entered the University of Florida as a doctoral student in geography and a Foreign Language and Area Studies (FLAS) Fellow at the Center for African Studies. In January, 1999, he and Dr. Edward Malecki (as Principal Investigator) received a United States National Science Foundation Doctoral Dissertation Improvement Grant (#9901026) for Murphy's research project titled "Entrepreneurial Networks and Economic Development in Mwanza, Tanzania." In March, 1999, Murphy advanced to PhD. candidacy and in April, 1999, he completed the required coursework for the doctoral degree. Murphy conducted the field research for his dissertation in Mwanza from October, 1999 to April, 2000, and returned to the Boston, MA area for the data analysis and write-up phase of the project.

In September 2000, Murphy was hired as an assistant professor in the Department of Geography at Salem State College in Salem, MA. Murphy's teaching specialties at Salem State are in economic geography, links between environmental issues and economic development, and industrial development and globalization. Murphy's PhD. dissertation was defended in September 2001 and he received his doctorate from the University of Florida in December 2001. He is married to Jacqueline Geer (since 1998) and has no children at the present time.

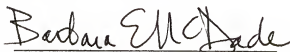
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Edward J. Malecki, Chairman
Professor of Geography


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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Chris O. Andrew
Professor of Food and Resource Economics

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

A handwritten signature in cursive script, reading "Michael Chege".

Michael Chege
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This dissertation was submitted to the Graduate Faculty of the Department of Geography in the College of Liberal Arts and Sciences and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December, 2001

Dean, Graduate School